

**SONY®**

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DME SWITCHER

**DFS-300**

**DFS-300MF**

**DFS-300P**

**DFS-300PMF**

**DFS-500**

**DFS-500MF**

**DFS-500P**

**DFS-500PMF**

DIGITAL CHROMAKEYER

**DCK-500**

**DCK-500P**

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**PROTOCOL MANUAL**

**REMOTE (9pin) CONNECTOR**

**1st Edition**

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## OUTLINE

The communication specifications when the DME switcher DFS-300 and DFS-500 series and the digital chroma keyer DCK-500/P (abbreviated as DFS and DCK hereafter) are controlled from an editing controller and computer (abbreviated as controller hereafter) via a 9-pin editor terminal are described below.

The communication protocol of the DFS series conforms to the Sony switcher protocol. However, this communication protocol does not support all the commands defined by the Sony switcher protocol. The commands that DFS supports and their application are explained next.

## 1. SERIAL DATA CONFIGURATION

### 1-1. COMMUNICATION SYSTEM

D-Sub 9-pin

Conforms to RS-422A.

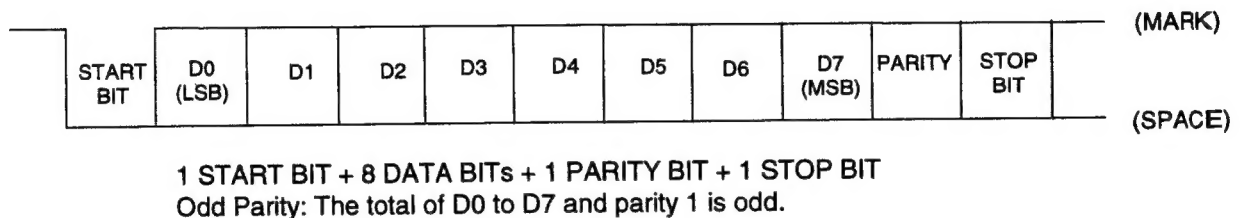
Synchronous system: Start-stop

Baud rate: 38400

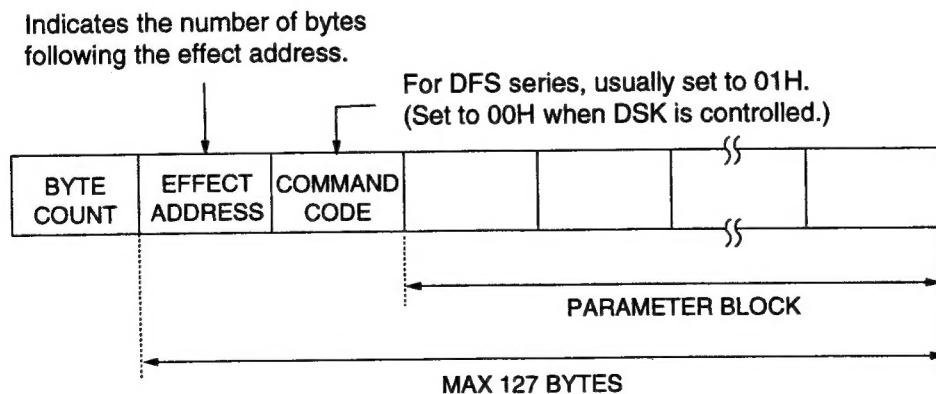
Character length: 8 bits

Parity: Odd

Stop bit: 1



### 1-2. COMMAND CONFIGURATION

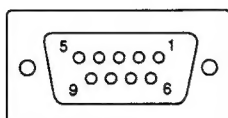




### 1-3. CONNECTION

#### EDITOR CONNECTOR

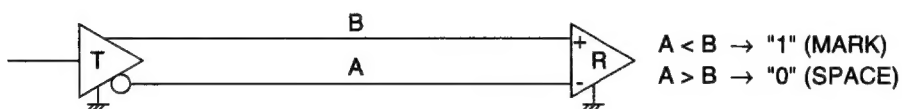
D-SUB 9pin (Female)



External View

Pin No.	Signal name	Function
1	GND	Frame Ground
2	XMIT-	Transmit "A"
3	RCV+	Receive "B"
4	GND	Receive Common
5	NOT USED	Space
6	GND	Transmit Common
7	XMIT+	Transmit "B"
8	RCV-	Receive "A"
9	GND	Frame Ground

"A" and "B" are defined as shown below.



T : Transmit

R : Receive



## 2. COMMAND DESCRIPTION

The commands when the DFS-300 and DFS-500 series, and DCK-500 and DCK-500P (abbreviated as DFS and DCK hereafter) are controlled using a 9-pin editor terminal are described below.

The commands below are enabled for the following setting.

DFS-500 series: Set the editor select switch on the SY-172 board to BVE-900.

DFS-300 series: Set the editor select switch on the SY-199 board to PVE-500.

DCK-500/500P: No setting is required.

A return code (ACK) is returned within 10 ms if a command is properly received when it is entered.

Return code (ACK)

- byte0

8	4
---	---

 (R)

However, a return parameter (REGISTER READ or GROUP TALLY) is returned when a REGISTER READ command and GROUP READ command are sent.

To interrupt the effect, enter an ALL STOP command.

- Command 1: ALL STOP (EFFECT TRASITION)

byte0 byte1 byte2 byte3

03	01	97	01
----	----	----	----

 (W)

- Command 2: ALL STOP (DSK TRASITION)

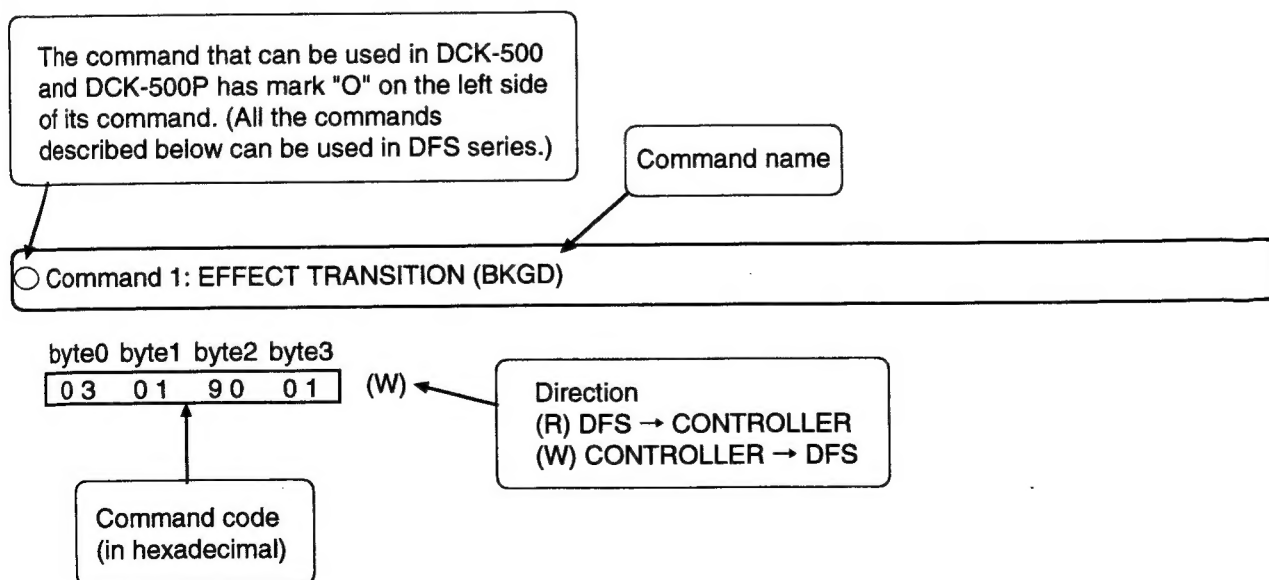
byte0 byte1 byte2 byte3

03	00	97	02
----	----	----	----

 (W)

### 2-1. VIEWING THE TABLE

Example





## 2-2.CROSS POINT

### ○ Command 1: BKGD A (PGM) BUS

byte0 byte1 byte2 byte3

03 01 80 XX (W)

#### Byte 3 (XX) status

0 1 : Video Input 1  
0 2 : Video Input 2  
0 3 : Video Input 3  
0 4 : Video Input 4  
Others : Internal Video

### ○ Command 2: BKGD B (PST) BUS

byte0 byte1 byte2 byte3

03 01 81 XX (W)

#### Byte 3 (X X) status

0 1 : Video Input 1  
0 2 : Video Input 2  
0 3 : Video Input 3  
0 4 : Video Input 4  
Others: Internal Video

Function : Selects the bus.  
Command 1: Selects the cross point of a BKGD bus.  
Command 2: Selects the cross point of an FRGD bus.

Return code : ACK

byte0

84 (R)



## 2-3.TRANSITION

### 2-3-1.Transition Mode Selection

☐ Command 1: EFFECT TRANSITION (BKGD)

byte0	byte1	byte2	byte3
03	01	90	01

(W)

Command 2: DSK TRANSITION

byte0	byte1	byte2	byte3
03	00	90	02

(W)

Function : Specifies the effect transition or DSK transition.

### 2-3-2.Transition Type

☐ Command: TRANSITION TYPE

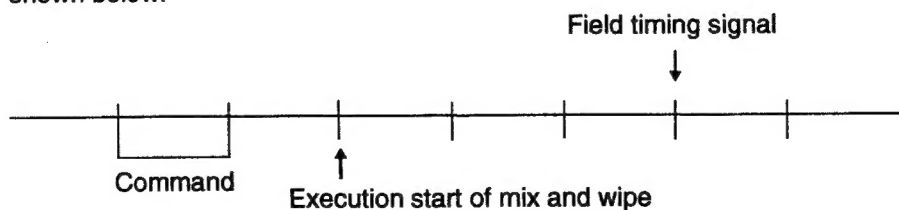
byte0	byte1	byte2	byte3
03	01	91	XX

(W)

Byte 3 (XX) status  
 0 2: Mix  
 0 4: Wipe

Function : Selects the effect type.

Remarks : The execution timing of Auto Transition Start varies depending on the effect type as shown below.



Return Code : ACK

byte0
84

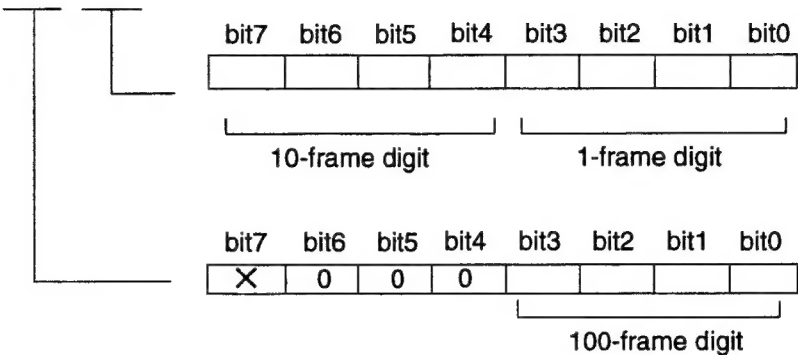
(R)



2-3-3.Auto Transition Start

○ Command 1: AUTO TRANSITION START (EFFECT)

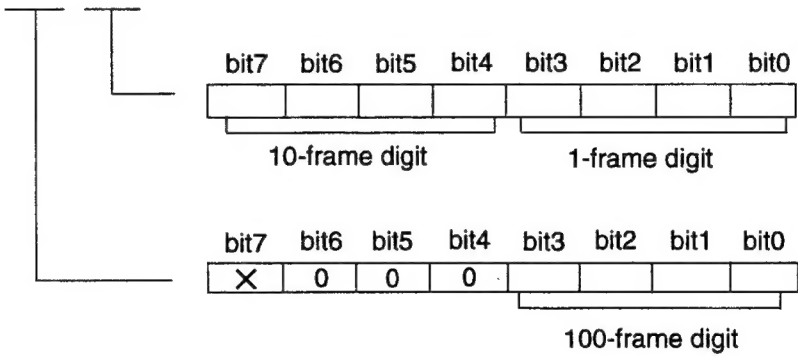
byte0 byte1 byte2 byte3 byte4  
04 01 96 XX YY (W)



Byte 3(XX) and byte 4(YY) represent the transition time in units of frames (decimal).

Command 2: AUTO TRANSITION START (DSK)

byte0 byte1 byte2 byte3 byte4  
04 00 96 XX YY (W)



Byte 3(XX) and byte 4(YY) represent the transition time in units of frames (decimal).

Function : Transition start  
Remarks : The execution timing of DSK is as shown below.



Return code : ACK  
byte0  
84 (R)



## 2-3-4.All Stop

☐ Command 1: ALL STOP (EFFECT TRANSITION)

byte0 byte1 byte2 byte3

03	01	97	01
----	----	----	----

 (W)

Command 2: ALL STOP (DSK TRANSITION)

byte0 byte1 byte2 byte3

03	00	97	02
----	----	----	----

 (W)

Function : Stops the effect in execution.

## 2-4.DSK ON/OFF

Command1: DSK ON

byte0 byte1 byte2 byte3

03	00	DA	10
----	----	----	----

 (W)

Command 2: DSK OFF

byte0 byte1 byte2 byte3

03	00	9A	10
----	----	----	----

 (W)

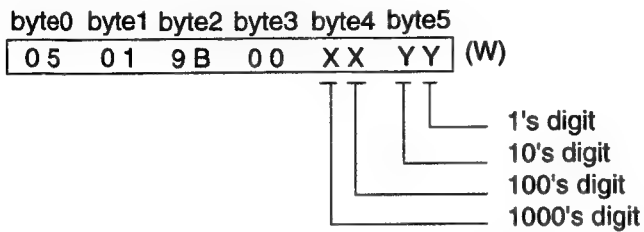
Function : Turns on and off DSK.



## 2-5.WIPE

### 2-5-1.Wipe Pattern

○ Command: WIPE PATTERN



Byte 4(XX) and byte 5(YY) represent the pattern number in decimal.  
(Example)

The pattern number of Mix is 1080, and that of Cut is 1059.

Function : Sets the wipe pattern.  
Various effects can be set (including the 3D effect) by entering the pattern number.  
Return code : ACK

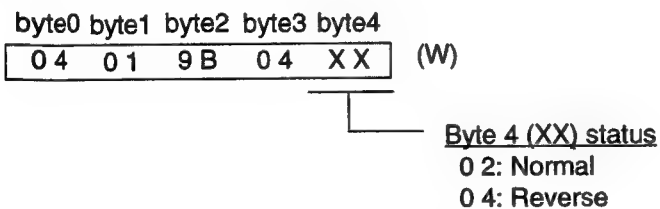
byte0  

84
----

 (R)

### 2-5-2.Direction

Command: DIRECTION



Function : Sets the wipe direction.  
Return code : ACK

byte0  

84
----

 (R)



## 2-6.FREEZE CONTROL

○ Command 1: FREEZE ON

byte0 byte1 byte2 byte3  

03	14	80	00
----	----	----	----

 (W)

Command 2: FREEZE OFF

byte0 byte1 byte2 byte3  

03	14	80	01
----	----	----	----

 (W)

**Function** : Sets the field freeze or frame freeze on the control panel to ON in advance. The freeze operation of a BKGD image can be turned on and off irrespective of the effect execution when the next command is sent from a 9-pin connector.

**Remarks** : (For DFS-500 series)  
Pattern number 9973 is set using the PATTERN/KEY PAD button on the control panel. After that, the freeze operation of an FRGD image can be controlled using the above command only when the effect of an animation type is set. To return a BKGD image to the freeze mode, enter pattern number 9971. During the power-on sequence and power reset, the system is initialized so that the BKGD image is frozen.

(For DFS-300 series)  
Basically, same as the DFS-500 series.  
In the DFS-300 series, the BKGD freeze and FRGD freeze can be selected by the pattern number described above or the setup menu. (For more details of the setup menu, refer to the Additional Functions of the DFS-300/300P (Operating Instructions).)



## 2-7. SNAP SHOT REGISTER

### 2-7-1. Configuration of Snap Shot Register

The DME switcher of DFS series has 100 snap shot registers of Nos. 00 to 99 (20 snap shot registers of Nos. 0 to 19 for DCK-500 and DCK-500P). One snap shot register consists of 16 groups. The number and size of groups used vary depending on the switcher model or the type of a parameter memorized in the snap shot. In this case, 16 groups are not all used. (In the DFS series, groups 1 and 2 or groups 1 to 4 are used.)

To upload or download the contents of the snap shot register in DFS and DCK to the controller, transfer data in units of this group. Therefore, the controller first issues a GROUP READ command to the DFS and DCK, views the contents of the group tally from the DFS and DCK, and specifies a valid group number so as to read the contents of snap shot data. To fetch the contents of the snap shot register that uses four groups (groups 1 to 4), the contents are read four times for each group.

### 2-7-2. Learn

Command: LEARN

byte0	byte1	byte2	byte3	byte4
04	21	80	02	XX

 (W)

XX = 00 to 63

Byte 4(XX) represents the snap shot number in hexadecimal.

Function : Registers the snap shot.

### 2-7-3. Recall

Command: RECALL

byte0	byte1	byte2	byte3	byte4
04	21	90	02	XX

 (W)

XX = 00 to 63

Byte 4(XX) represents the snap shot number in hexadecimal.

Function : Calls the snap shot.



2-7-4.Register Read

○ Command: REGISTER READ

byte0	byte1	byte2	byte3	byte4	byte5
05	21	20	02	XX	YY

(W)

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
X	X	X					

Displays the group numbers  
(01 to 16) in hexadecimal.

For effect number < 9000: YY = 01 to 02 (decimal)  
For effect number ≥ 9000: YY = 01 to 04 (decimal)  
Groups 3 and 4 are user program data.

XX = 00 to 63

byte4(XX) represents the snap shot number  
in hexadecimal.

Function : Reads the contents of the snap shot register.  
DFS or DCK returns the return parameter (REGISTER WRITE) when a REGISTER READ command (the snap shot number is specified by byte4 and the group number is specified by byte5) is issued to DFS or DCK.

Return parameter : REGISTER WRITE

byte0	byte1	byte2	byte3	byte4	byte5	byte6	.....	byte65
41	21	A0	02	XX	YY	aa		bb

(R)

Displays the contents of  
the group in 60 bytes.

The contents of byte4 (XX) and byte5(YY) are the same  
as a REGISTER READ command.



## 2-7-5.Register Write

○ Command : REGISTER WRITE

byte0 byte1 byte2 byte3 byte4 byte5 byte6 ..... byte65  
 4 1 2 1 A 0 0 2 XX YY a a (W) b b

Displays the contents of the group in 60 bytes.

bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
X	X	X					

Displays the group numbers  
(01 to 16) in hexadecimal.

Effect number < 9000: YY = 01 to 02 (decimal)

Effect number ≥ 9000: YY = 01 to 04 (decimal)

Groups 3 and 4 are user program data.

XX = 00 to 63

Byte 4(XX) represents the snap shot number in hexadecimal.

Function : Writes the contents of the snap shot register. (The snap shot number is specified by byte 4, and the group number is specified by byte 5.)

### Note

During write operation, data should be sequentially sent from group 1.



## 2-7-6.Group Read

○ Command: GROUP READ

byte0	byte1	byte2	byte3	byte4
04	21	30	02	XX

(R)

XX = 00 to 63

Byte 4(XX) represents the snap shot number in hexadecimal.

**Function** : Checks the block configuration of snap shot data. DFS or DCK returns the return parameter (GROUP TALLY) when a GROUP READ command (the snap shot number is specified by byte 4) is issued to DFS or DCK.

**Return parameter** : GROUP TALLY

byte0	byte1	byte2	byte3	byte4	byte5	byte6
06	21	B0	02	XX	YY	ZZ

(R)

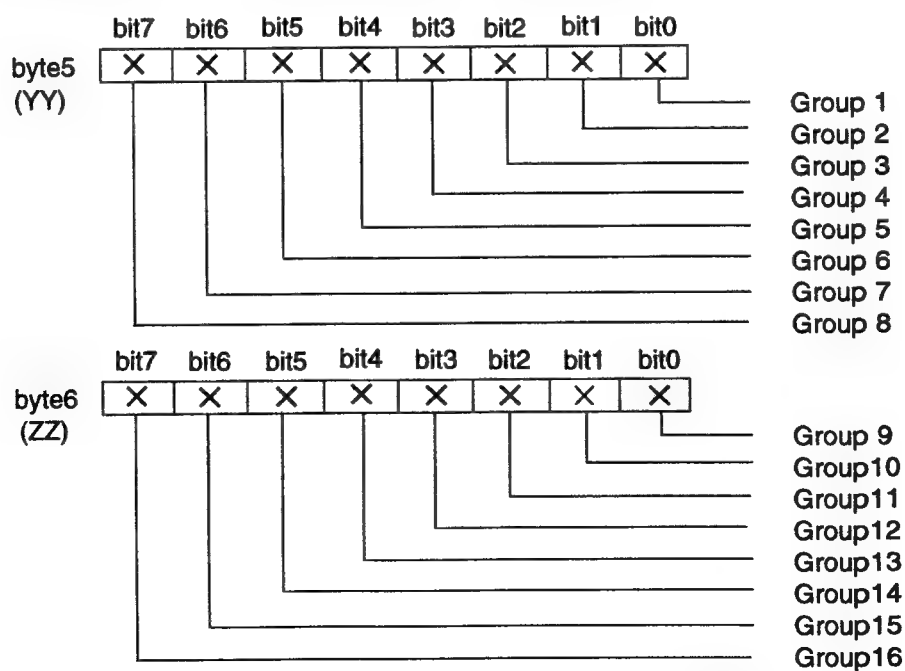
XX = 00 to 63

Byte 4(XX) represents the snap shot number in hexadecimal.

Byte 5(YY) and byte 6(ZZ) indicate the valid group contained in the snap shot register that is specified by byte 4(XX).

For effect number < 9000: Byte 5(YY) = 03, Byte 6(ZZ) = 00

For effect number ≥ 9000: Byte 5(YY) = 0F, Byte 6(ZZ) = 00



X = 1 indicated the valid group contained in the snap shot register.



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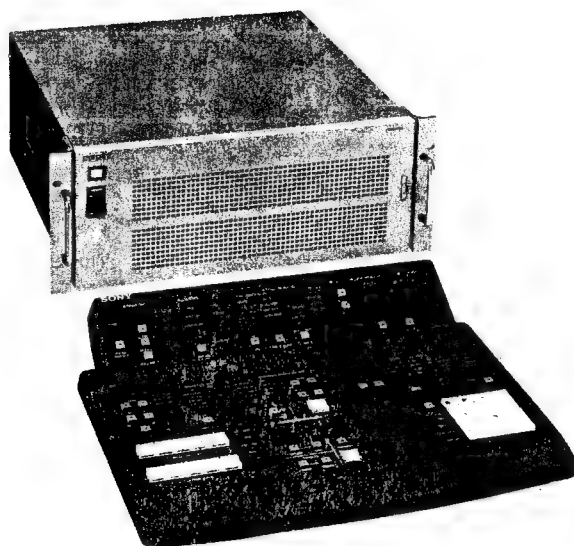
DME SWITCHER

# DFS-500 DFS-500P

---

SERVICE MANUAL

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## SAFETY CHECK-OUT

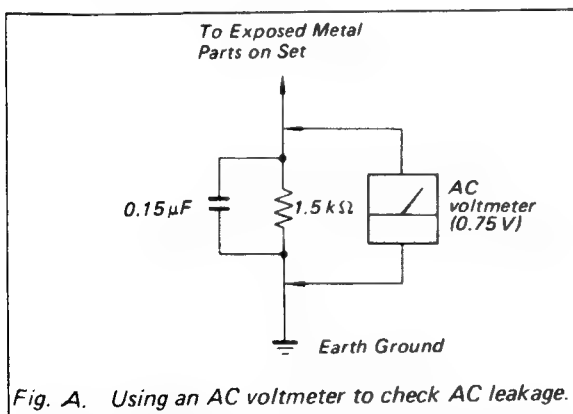
After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



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Title Control .....	
DSK (Down Stream Keyer) Control .....	
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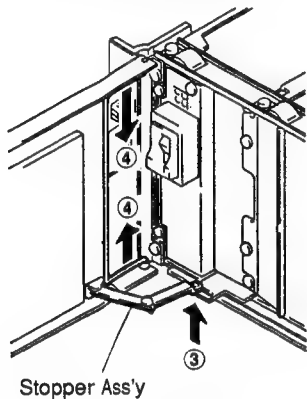
# SECTION 1 SERVICE INFORMATION

## 1-1. REMOVAL OF CABINET

### PROCESS UNIT>

#### FRONT PANEL:

- (1) After pushing the lower part of the handle in the direction of the arrow of ① and then pulling in the direction of the arrow of ②, open the Front Panel.
- (2) Pushing up the Stopper Ass'y in the direction of the arrow of ③, and remove the Stopper Ass'y.
- (3) Pushing the Hinge in the direction of ④, and remove Front Panel.

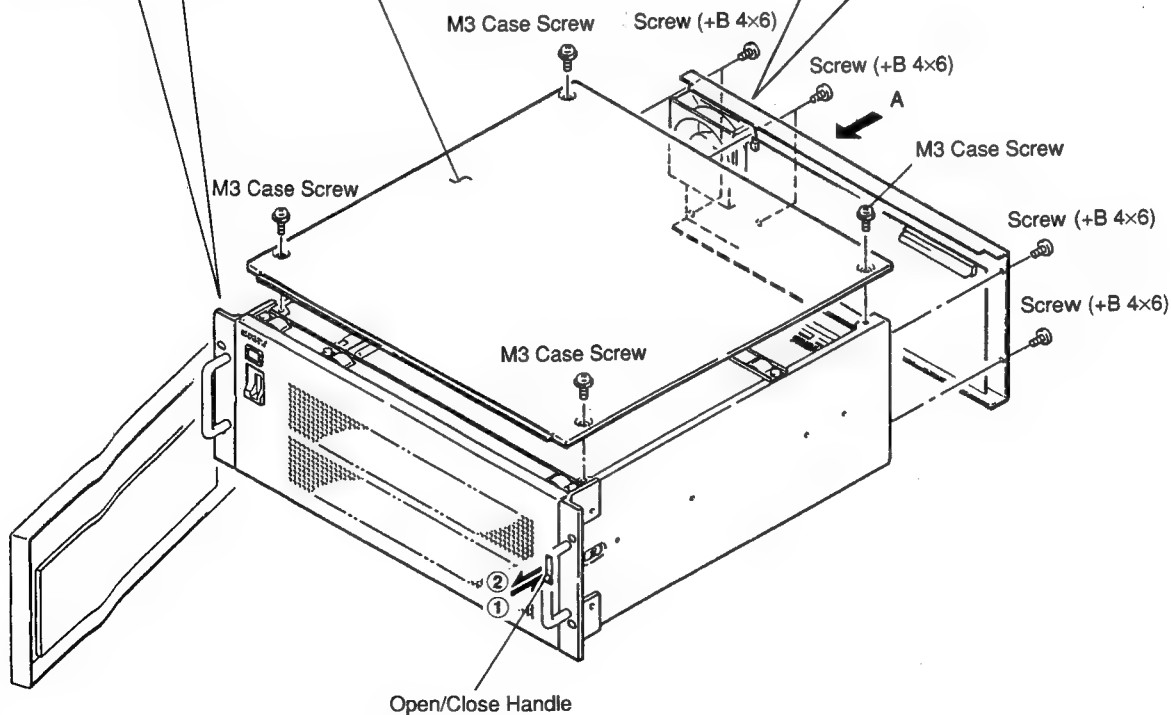
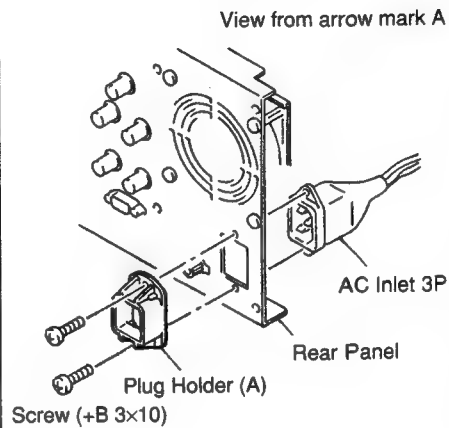


#### TOP PANEL:

- (1) Open the Front Panel.
- (2) Remove four screws (M3 case screw) and remove the Top Panel.

#### REAR PANEL:

- (1) Remove six screws (+B 4 × 6).
- (2) Remove two screws (+B 3 × 10) on the Plug Holder (A) and remove the Rear Panel.

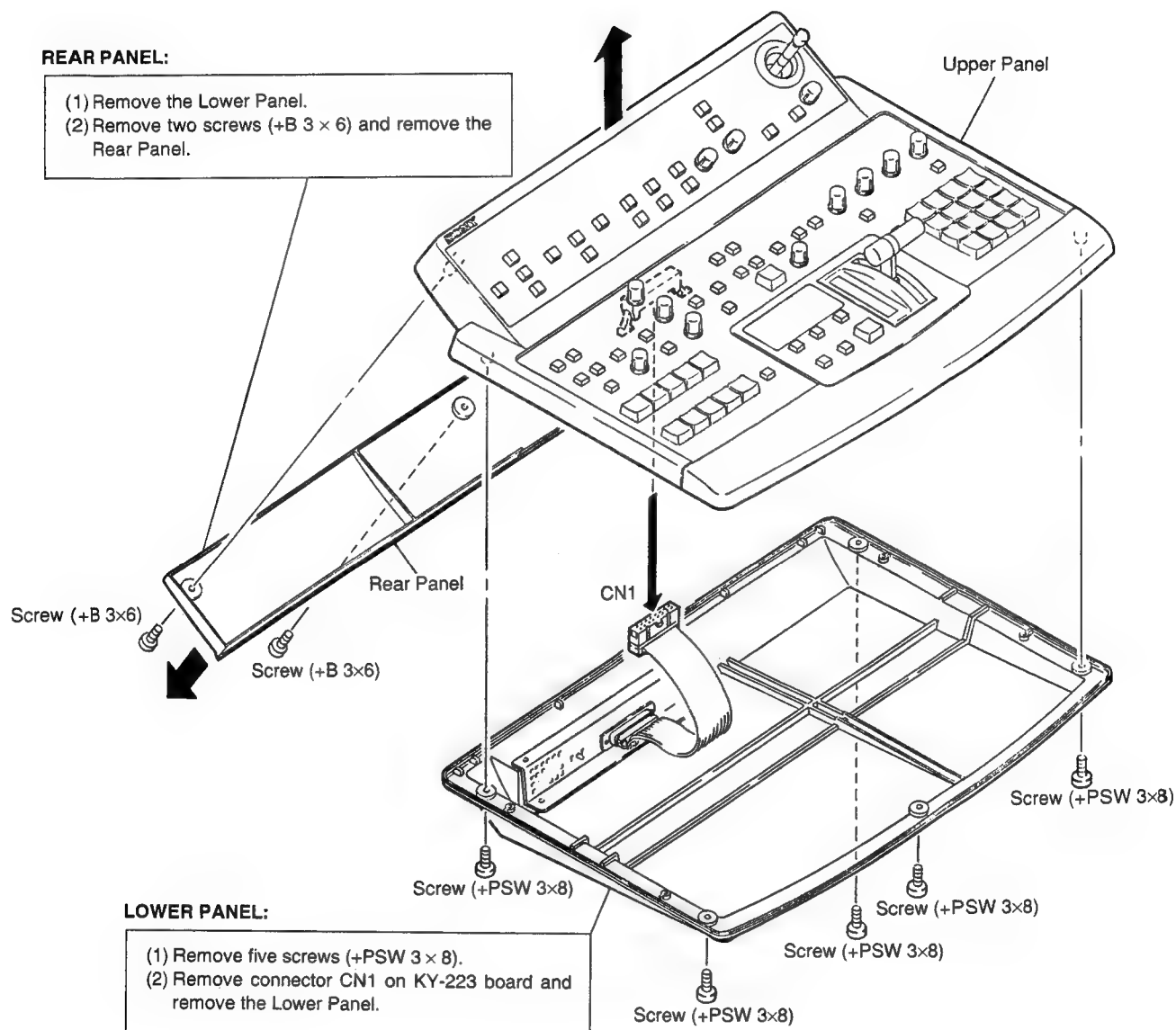




## <CONTROL PANEL>

### REAR PANEL:

- (1) Remove the Lower Panel.
- (2) Remove two screws (+B 3 × 6) and remove the Rear Panel.



### LOWER PANEL:

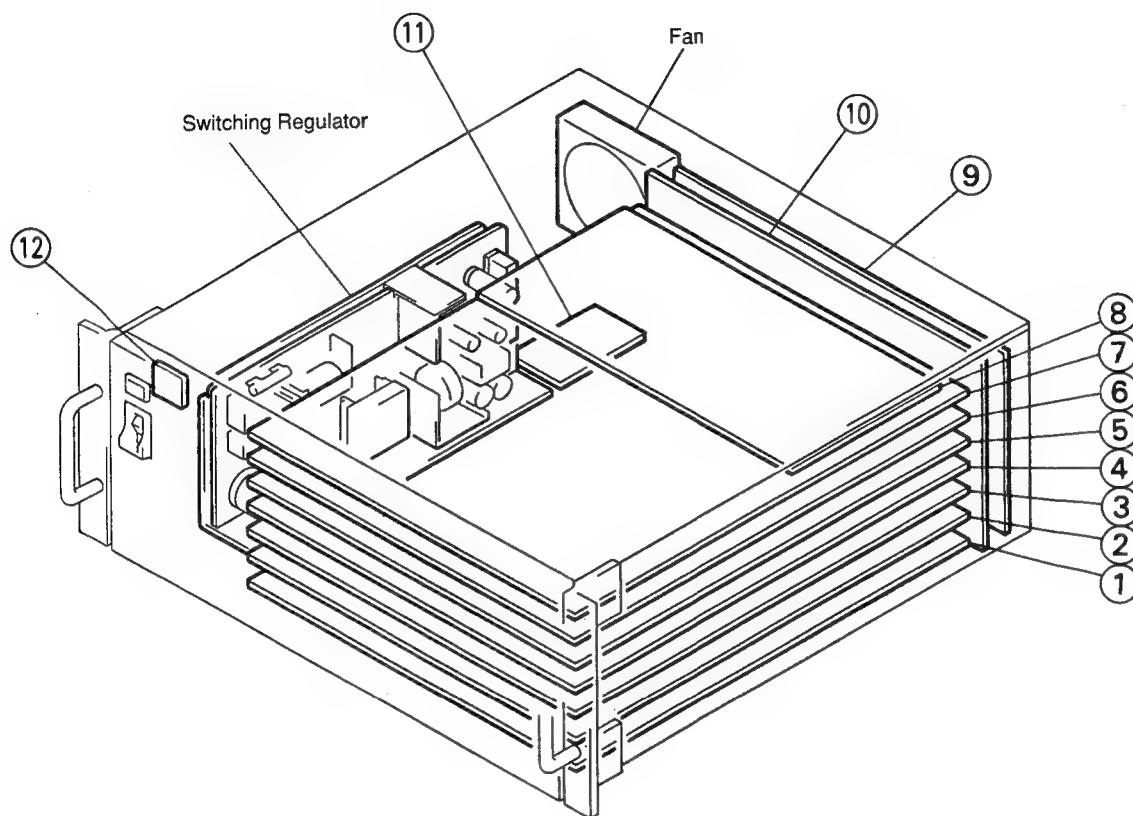
- (1) Remove five screws (+PSW 3 × 8).
- (2) Remove connector CN1 on KY-223 board and remove the Lower Panel.





## I-2. BOARDS LOCATION

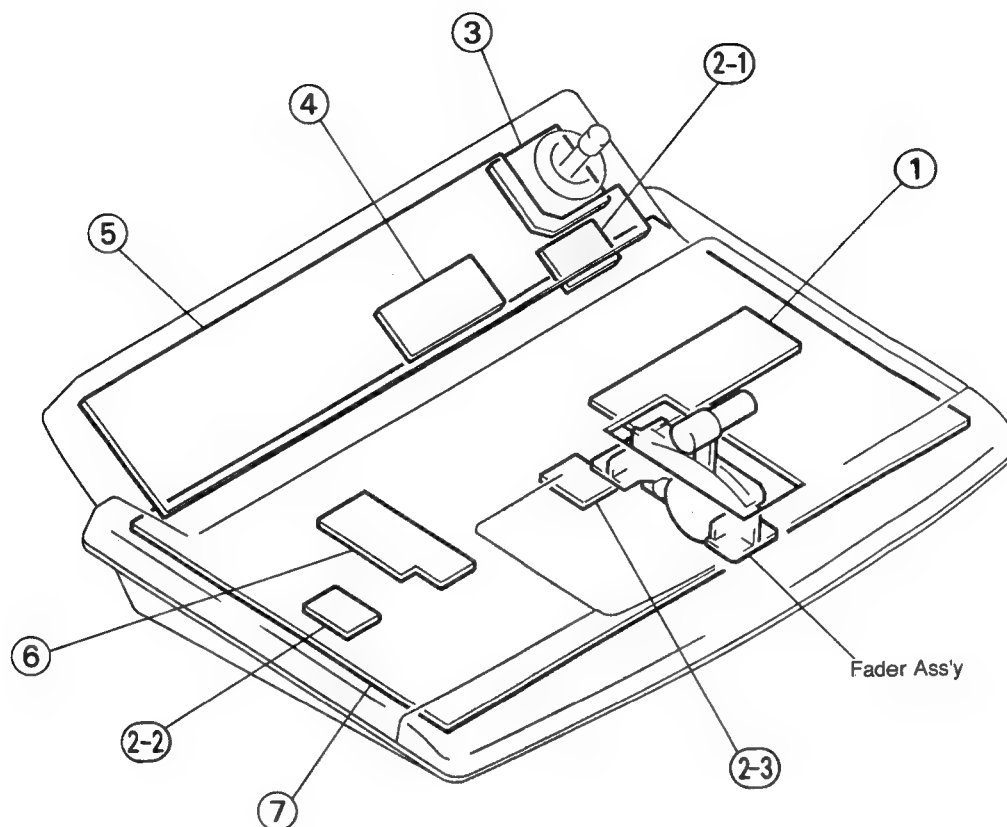
### PROCESS UNIT>



1. AD-76 Board : A/D Converter
2. SY-172 Board : System Control
3. FM-29 Board : Frame Synchronizer
4. PU-78 Board : Address Operation
5. MY-54 Board : Field Memory
6. VE-25 Board : Lighting and Trail (option)
7. DA-63 Board : D/A Converter
8. DK-5 Board : DSK (Down Stream Keyer) (option)
9. CN-573 Board : Rear Panel Connector
0. MB-385 Board : Mother board
1. AC-111 Board : Line Filter (for EK)
12. LE-55 Board : Power Indicator



# <CONTROL PANEL>



1. VR-138 Board : Effect Control
- 2-1. VR-135 Board : Location Control
- 2-2. VR-135 Board : Title Control
- 2-3. VR-135 Board : DSK (Down Stream Keyer) Control
3. KY-226 Board : Positioner
4. VR-136 Board : Edge/Trail/Shadow Control
5. KY-225 Board : Switch
6. VR-137 Board : Mattes/BKGD Control
7. KY-223 Board : Function Key



### 1-3. PRINTED CIRCUIT BOARD FUNCTION

- ① "SP Code" means Supply Code.  
 ② "PCB" in the SP Code column means Printed Circuit Board, "MCB" in the SP Code column means Mounted Circuit Board.

#### <PROCESS UNIT>

BOARD	CIRCUIT FUNCTION	SP CODE
AC-111	Line Filter (for EK)	O(PCB)
AD-76	A/D Converter	O(MCB)
CN-573	Rear Panel Connector	O(MCB)
DA-63	D/A Converter	O(MCB)
DK-5(*1)	DSK(Down Stream Keyer)	U
FM-29	Frame Synchronizer	O(MCB)
IE-55	Power Indicator	O(PCB)
MB-385	Mother Board	O(MCB)
MY-54	Field Memory	O(MCB)
PU-78	Address Operation	O(MCB)
SY-172	System Control	O(MCB)
VE-25(*2)	Lighting and Trail	U

#### <CONTROL PANEL>

BOARD	CIRCUIT FUNCTION	SP CODE
KY-223	Function Key	O(MCB)
KY-225	Switch	O(MCB)
KY-226	Positioner	O(MCB)
VR-135	Location Control Title Control DSK(Down Stream Keyer) Control	O(PCB)
VR-136	Edge/Trail/Shadow Control	O(PCB)
VR-137	Mattes/BKGD Control	O(PCB)
VR-138	Effect Control	O(PCB)

**NOTE:** (\*1) DK-5 Board is Optional Board; BKDF-502.  
 (\*2) VE-25 Board is Optional Board; BKDF-501.

### 1-4. REPLACEMENT OF BOARD

#### 1-4-1. Plug-in Board Removing/Inserting

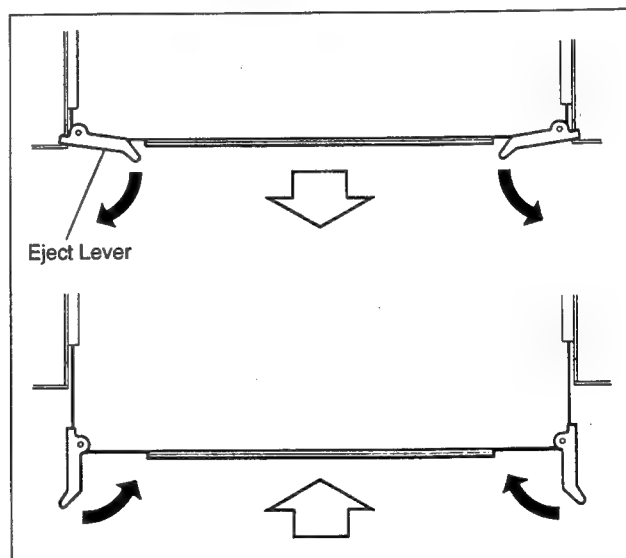
**NOTE:** In more than two seconds after turning the power on the Process Unit OFF and remove or insert the Plug-in boards definitely (AD-76, DA-63, FM-29, MY-54, PU-78 and SY-172 boards). (If the board is inserted in a state of turning the power on, the fuse on the board has run out and the board can be not used.

##### Plug-in Board Removing

Pull up the eject levers on the board in the direction of the arrow, and then remove the board from the connectors on the MB-385 board.

##### Plug-in Board Inserting

The eject levers pull up as shown in the figure, insert the board. After inserting the board, push down the eject levers in the direction of the arrow and connect certainly to the connectors on the MB-385 board.



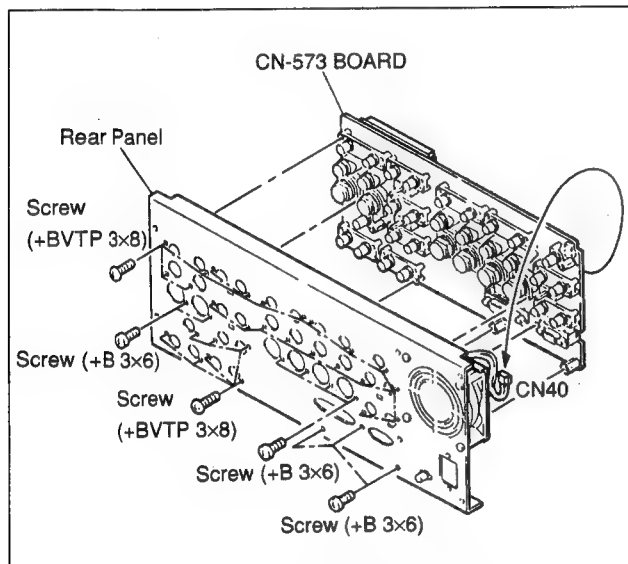


## 1-4-2. Board Replacement

### <PROCESS UNIT>

#### CN-573 Board:

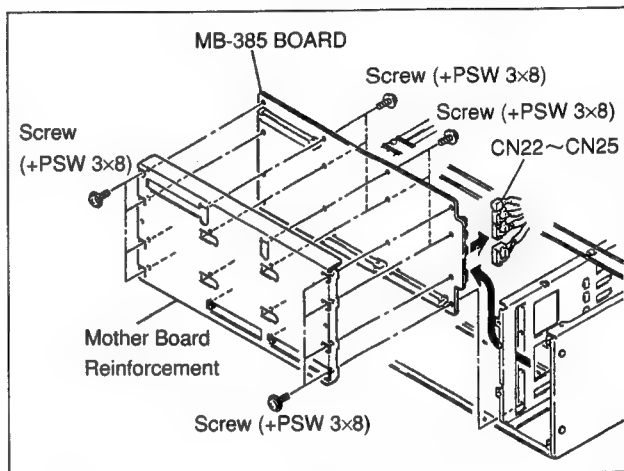
- ① Remove the rear panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Rear Panel.)
- ② Remove connector CN40 from the CN-573 board.
- ③ Remove thirty-seven screws (+BVTP 3 × 8: twenty-eight screws / +B 3 × 6: nine screws), and remove the CN-573 board.



- ④ Replace a new one in the reverse procedure of steps ① through ③.

#### MB-385 Board:

- ① Remove all the Plug-in Boards.
- ② Remove the rear panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Rear Panel.)
- ③ Remove connectors CN22, CN23, CN24 and CN25 on the MB-385 board.
- ④ Remove eight screws (+PSW 3 × 8), and remove the Mother Board Ass'y.
- ⑤ Remove eight screws (+PSW 3 × 8), and remove the MB-385 board from the Mother Board Reinforcement.



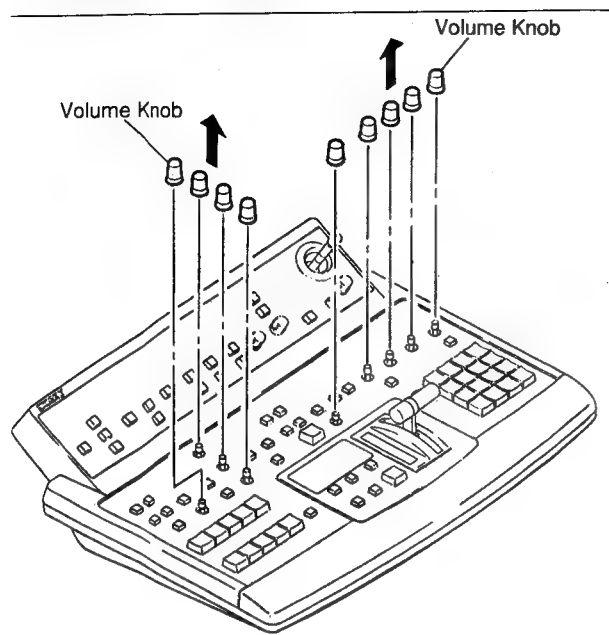
- ⑥ Install the Mother board Reinforcement to a new MB-385 board by eight screws (+PSW 3 × 8).
- ⑦ Thread eight screws (+PSW 3 × 8) to the Mother board Ass'y snugly but do not tighten.
- ⑧ Insert the DA-63 board into the No.1 slot and the AD-76 board into the No.7 slot and connect the connectors on the DA-63 and AD-76 boards to connectors on the MB-385 Board.
- ⑨ Tighten the eight screws which is threaded snugly in step ⑦.



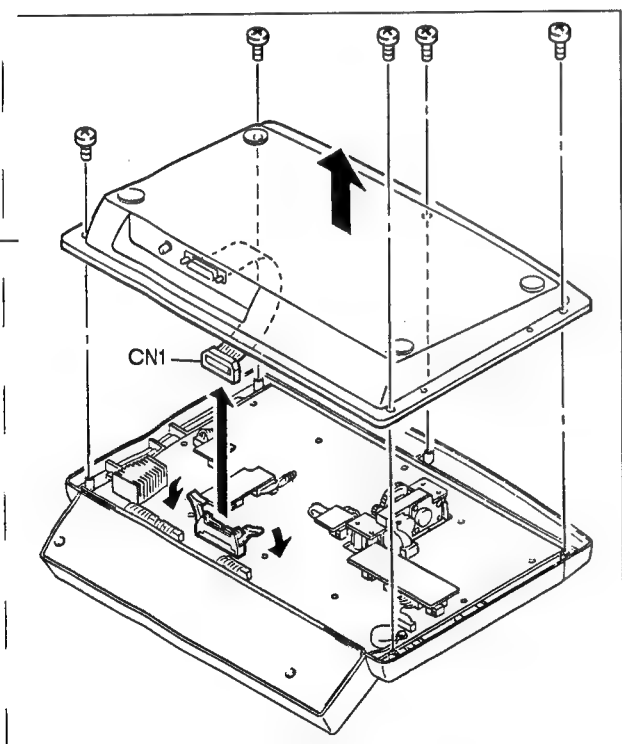
## <CONTROL PANEL>

### KY-223 Board:

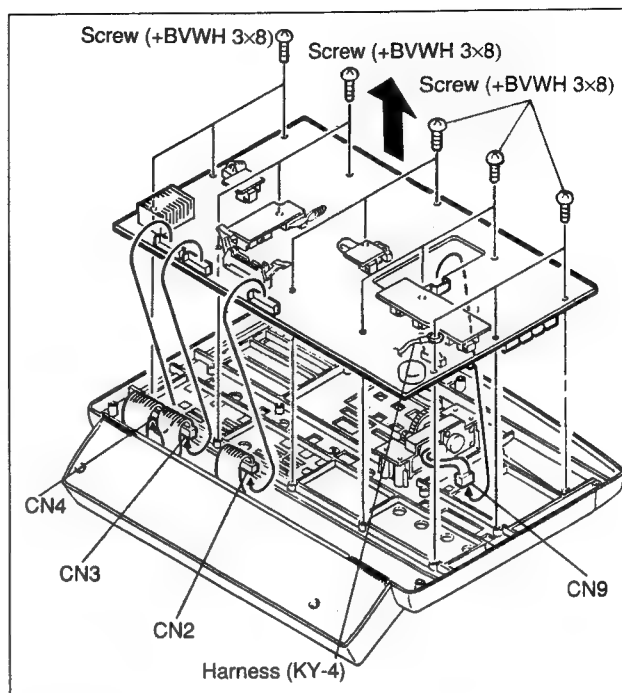
- ① Remove nine volume knobs.



- ② Remove the lower panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Lower Panel.)



- ③ Remove connectors CN2, CN3, CN4 and CN9 on the KY-223 board. Remove one screw (+BVWH 3 × 8) and remove the Harness (KY-4).
- ④ Remove fourteen screws (+BVWH 3 × 8) and remove the KY-223 board.

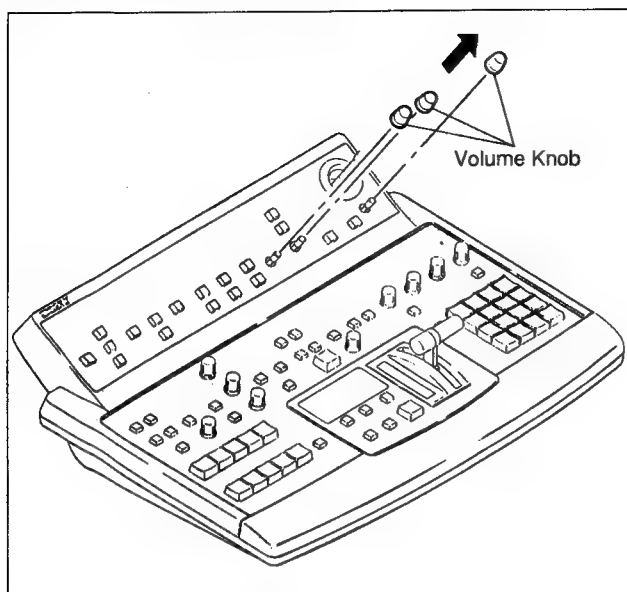


- ⑤ Replace a new one in the reverse procedure of steps ① through ④.

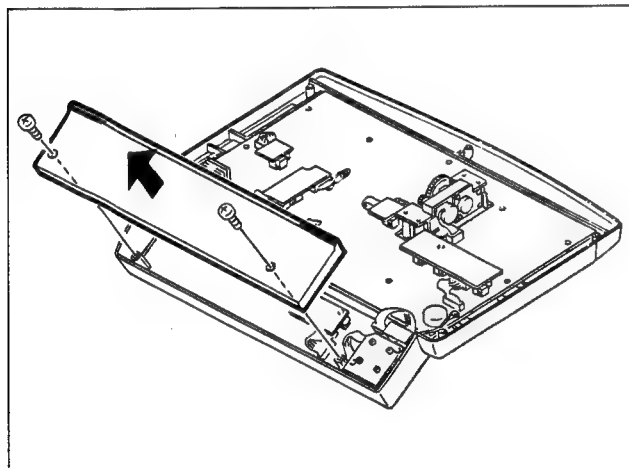


### KY-225 Board:

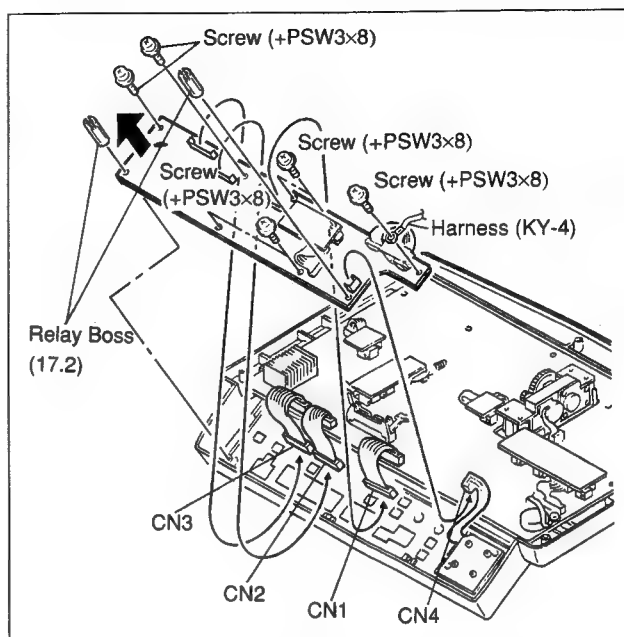
- ① Remove three volume knobs.



- ② Remove the lower panel and the rear panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Lower Panel and Rear Panel.)



- ③ Remove connectors CN1, CN2, CN3 and CN4 from the KY-225 board, and remove one screw (+B 3 × 6) and remove the Harness (KY-4).
- ④ Remove six screws (+PSW 3 × 8) and two relay bosses (17.2), remove a new one.



- ⑤ Replace a new one in the reverse procedure of steps ① through ④.



## 1-5. REPLACEMENT OF SWITCHING REGULATOR

### 1-5-1. Primary Circuit and Electric Shock

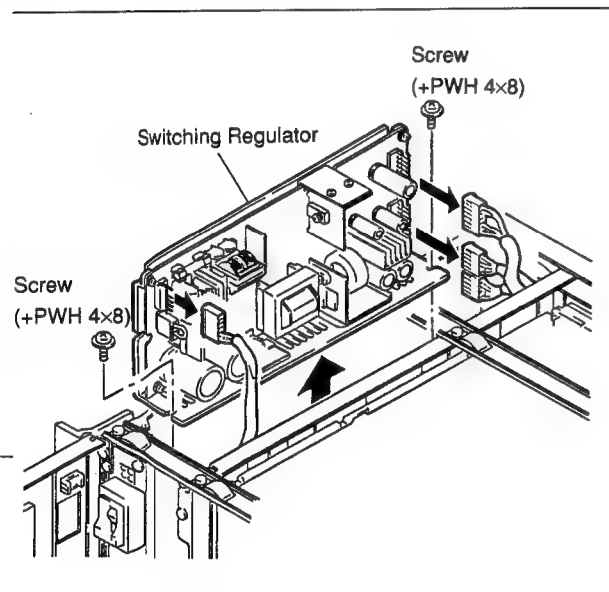
The most of the switching regulator is primary side circuit. Take care of an electric shock when removing the switching regulator for replacement or another reason.

### 1-5-2. Switching Regulator of Removal

**NOTE:** When replacement of the switching regulator, be sure to turn the power OFF and start work.

#### <REPLACEMENT PROCEDURE>

- ① Remove the top panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Top Panel)
- ② Remove three connectors and Harness.
- ③ Remove the Harness (AC Inlet) from the wire clamp.
- ④ Remove two screws (+PWH 4 × 8).
- ⑤ Pull up the switching regulator.



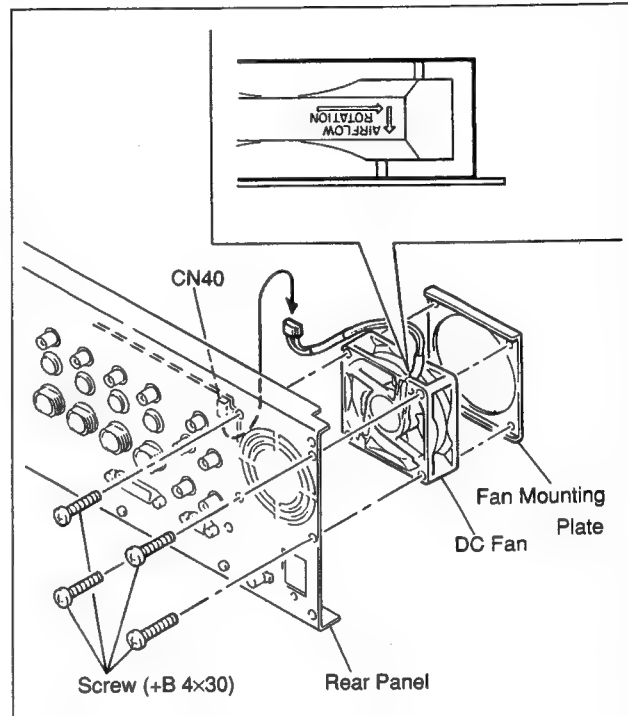
- ⑥ Replace a new one in the reverse procedure of steps ① through ⑤.

## 1-6. REPLACEMENT OF DC FAN MOTOR

**NOTE:** If the unit serves for about ten thousand times, the DC fan motor should be replaced.

#### <REPLACEMENT PROCEDURE>

- ① Remove the rear panel Ass'y. (Refer to "Section 1-1 REMOVAL OF CABINET" Rear Panel.)
- ② Remove connector CN40 on the CN-573 board. Remove four screws (+B 4 × 30) and remove the DC fan motor.



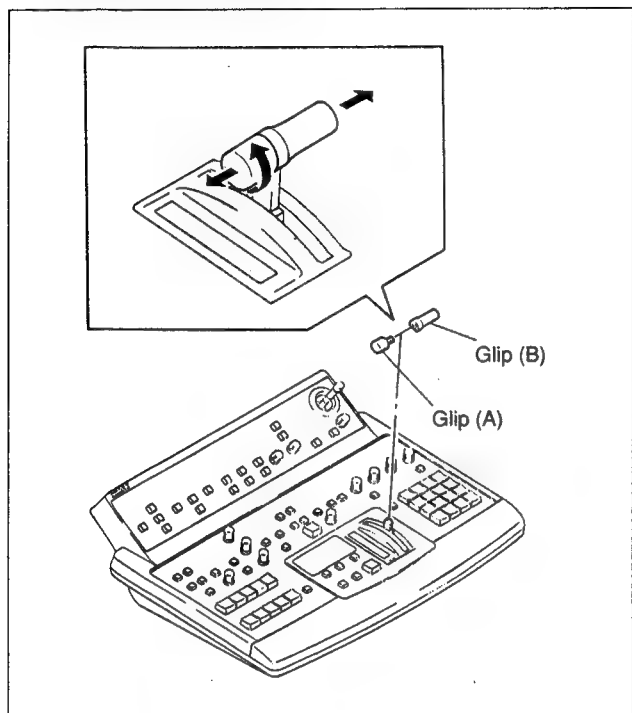
- ③ Install a new one in the direction of the arrow in the figure in the reverse of steps ① through ②.



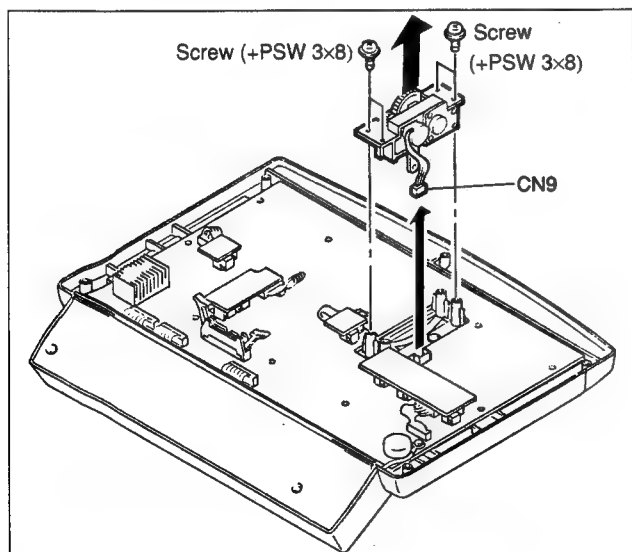
## 1-7. REPLACEMENT OF MAIN PARTS ON CONTROL PANEL

### <FADER ASS'Y>

- ① Remove the Grip A and Grip B.



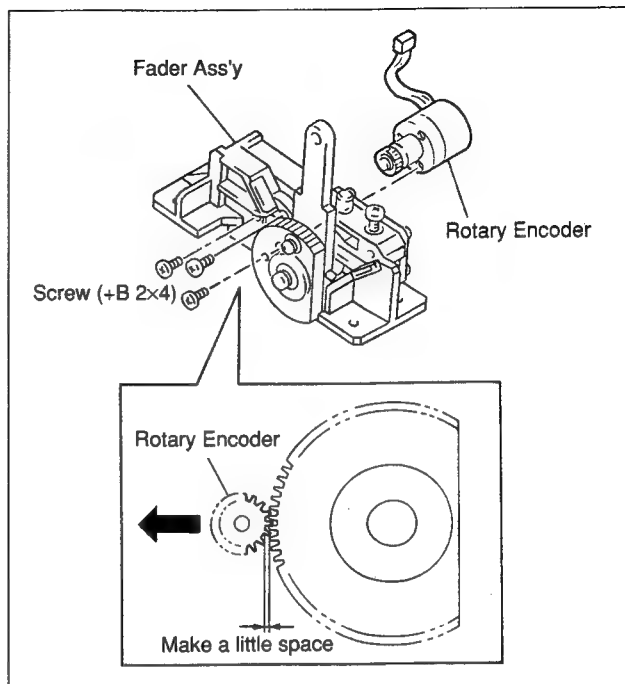
- ② Remove the lower panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Lower Panel.)  
 ③ Remove connector CN9 on the KY-223 board. Remove four screws (+PSW 3 × 8) and remove the Fader Ass'y.



- ④ Replace a new one in the reverse of steps ① through ②.

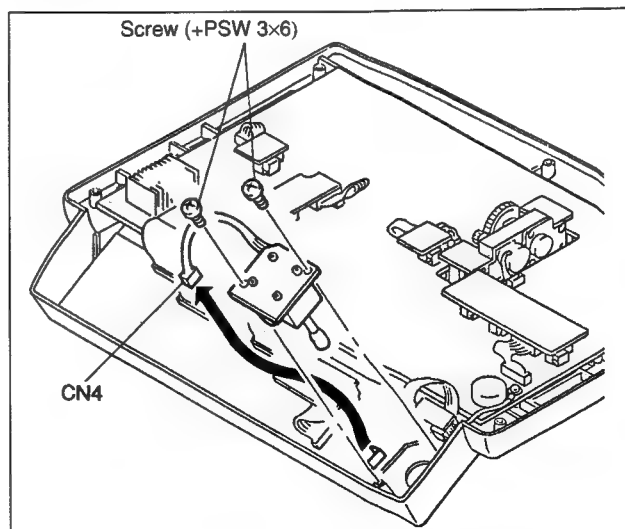
### <POSITION ADJUSTMENT of ROTARY ENCODER>

When replacing a Rotary Encoder, adjust the lever for moving smoothly. Tighten three screws (+B 2 × 4) of a new one.



### <JOY STICK>

- ① Remove the lower panel and the rear panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Lower Panel and Rear Panel.)  
 ② Remove connector CN4 on the KY-225 board. Remove two screws (+PSW 3 × 6) and remove the KY-226 board with Joy Stick.



- ③ Replace a new one in the reverse of steps ① through ②.



## 1-8. RACK-MOUNTING

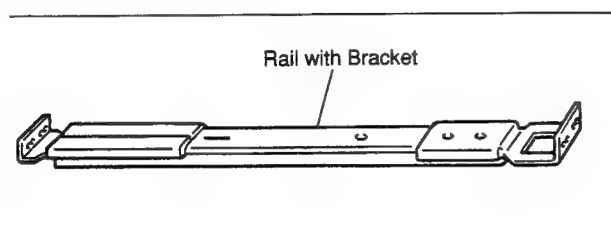
This unit can be mounted on an EIA Standard 19-inch rack. When mounting, be sure to use a support angle or slide rail.

- Recommended slide rail  
RMM-30 (SONY RACK MOUNT RAIL)

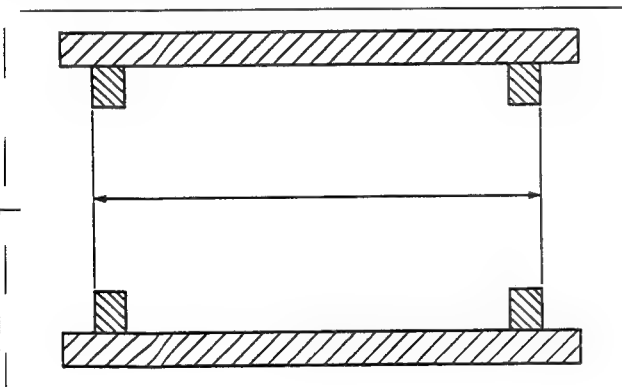
### 1-8-1. When Using RMM-30 (optional accessory)

The unit can be mounted easily on the 19-inch standard rack by using one RMM-30 (SONY Rack Mount Rail) for one unit.

- Component parts  
Rail with bracket      × 2  
Screw (+PWH × 10)   × 2  
Plate nut M4          × 2  
Screw (+B 5 × 8)     × 8

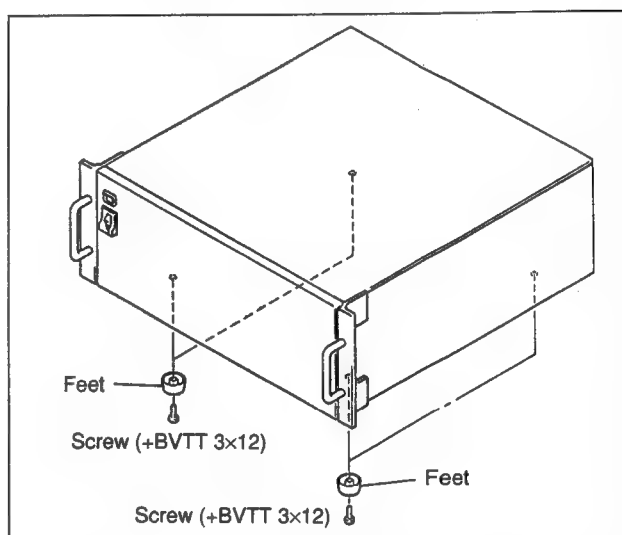


- Usable rack  
One with a depth of 660 to 830 mm



- How to install

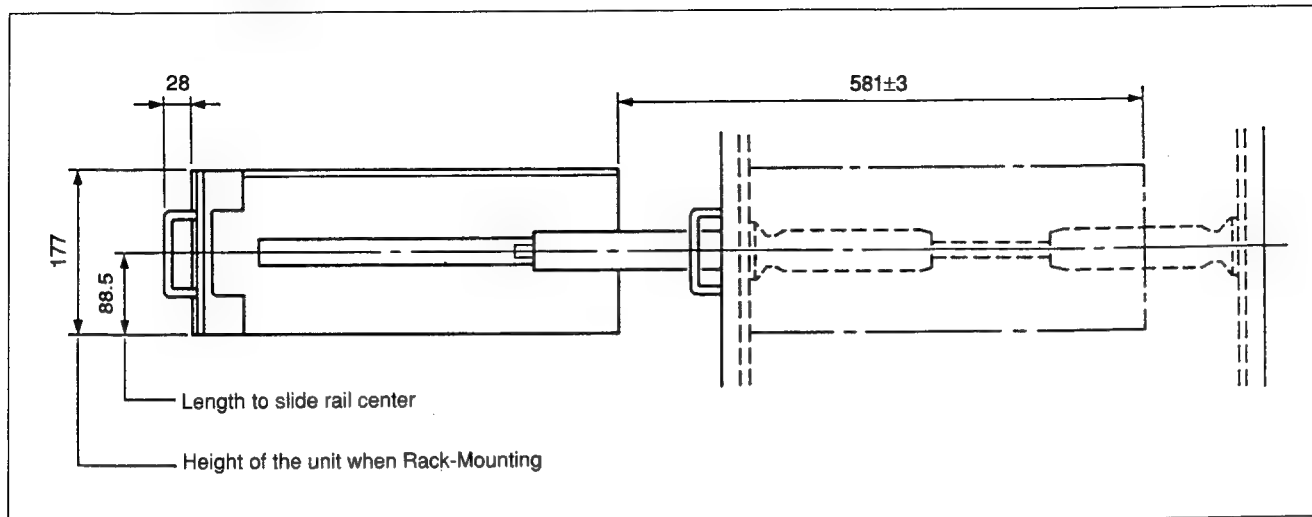
- ① Remove four feet from the bottom of the unit.



- ② Install the rack mounting rail. For details, refer to INSTALLATION MANUAL packed with the rack mounting rail RMM-30.

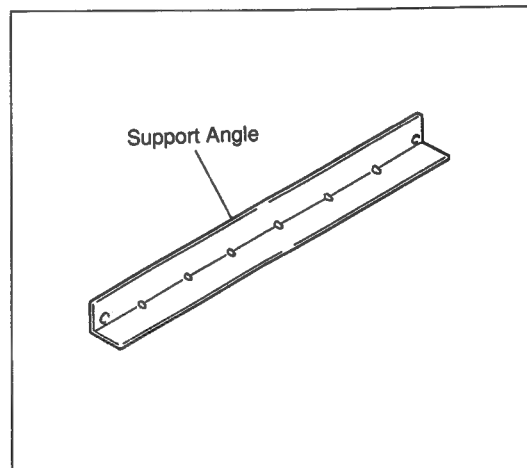
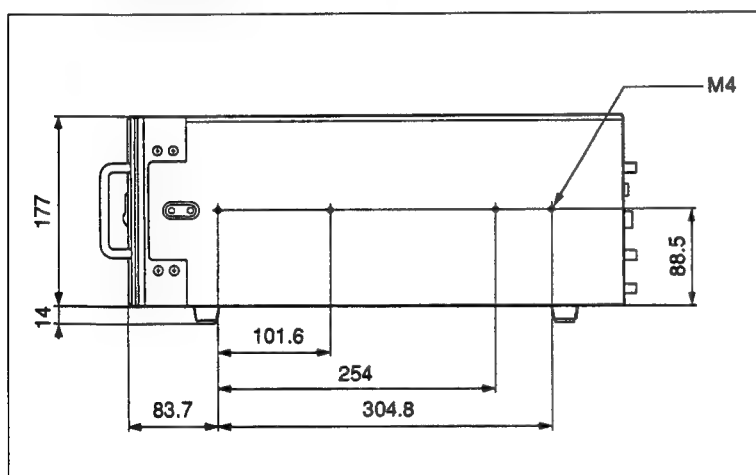


- Maximum movable length of the DFS-500 is as follows.



#### 1-8-2. In Cases When Other Than RMM-30 Is Used:

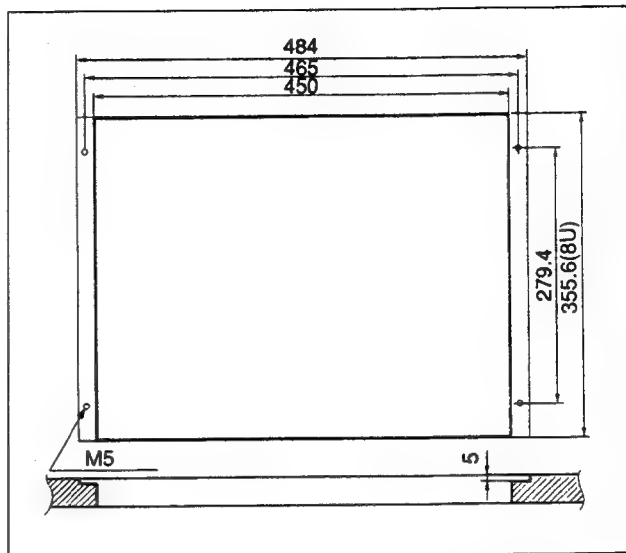
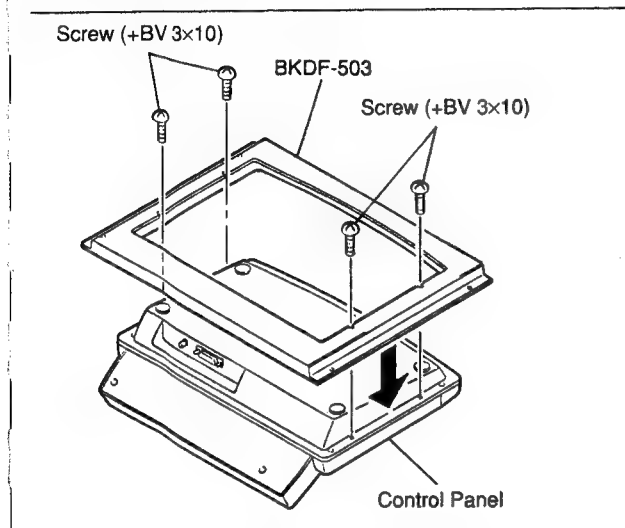
In cases when a support angle or a slide rail that is sold by rack makers is used, check the external dimensions of the unit and the slide rail mounting holes and mount it according to the instruction manual of each rack maker.





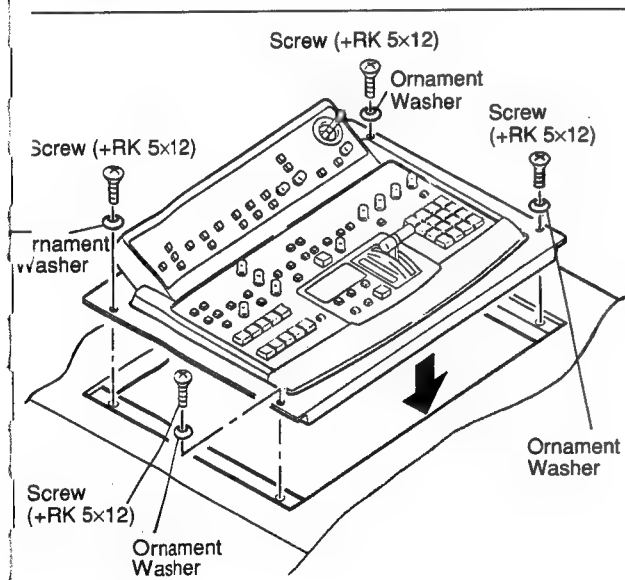
### 1-8-3. BKDF-503 Installation

- 1) Install the BKDF-503, RACK MOUNT PANEL to the lower panel of the control panel.  
Tighten the supplied accessory four screws (+BV 3 × 10) to the BKDF-503.



Dimension of installation hole on the adjustment desk

- 2) Fit the BKDF-503 into the adjustment desk.  
Tighten the supplied accessory four screws (+RK 5 × 12) and ornament washers (DIA.5) to the BKDF-503.





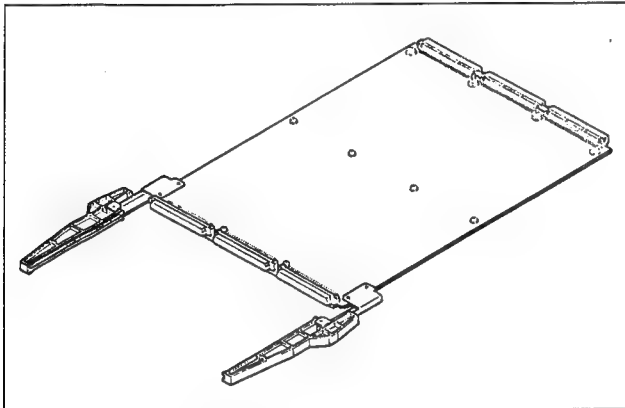
## 1-9. FIXTURES / MESURING INSTRUMENTS

### 1-9-1. Fixtures

#### Extension Board EX-326

Sony Part No. J-6186-940-A

Extension Board EX-326 is used for AD-76, DA-63, FM-29, MY-54, PU-78, SY-172 and VE-25 (BKDF-501/501P) Boards to inspect and adjust.



#### PLCC IC Extraction Tool

Sony Part No. J-6035-070-A

This tool is used for extracion the PLCC ICs,. (Refer to "Section 1-14-3 Replacement of PLCC IC".)

#### 25-pin Control Cable (5m)

Sony Part No. 1-575-065-11

This 25-Pin Control Cable is used for inspection and adjustment.

#### Connector Cable

Multi Connector Cable (DOBNC)

Sony Part No. J-6031-830-A

Multi Connector Cable (DIBNC)

Sony Part No. J-6031-820-A

#### Video Cable (S-BNC)

Sony Parts No. J-6381-380-A

#### Standerd product

Spot Heater HS-600 (100 V)

HS-600 (117 V)

HS-600 (220 V)

HS-600 (240 V)

Nozzle HS-616 (for HS-600)

HS-619 (for HS-600)

These Spot Heater and Nozzle are used for extraction the ICs by warm wind after connecting the Spot Heater and the Nozzle.

For the above spot Heater and the Nozzle, please contact to the following.

Ikas,Inc

ADDRESS: Executive Center Suite 312, 21601 Devonshire St., Chatsworth, CA. 91311, USA

TEL: 818-882-4116

FAX: 818-341-6466

Bielec:

ADDRESS: Valencia, 40, 08015 Barcelona, Spain

TEL: 34 3 226 44 87

FAX: 34 3 226 69 32

Scope Laboratories:

3 Walton Street, Airport West, Melbourne, Australia

TEL: (03) 338 1566

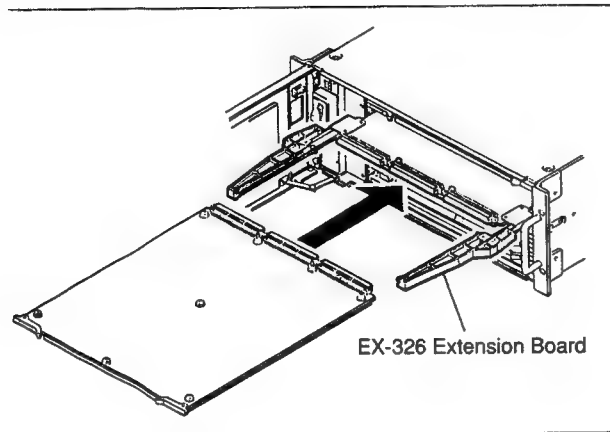
FAX: (03) 338 5675





### 1-9-2. Use of Extension Board

- ① Turn the power OFF. Open the front panel. Pull up the eject levers on the board and remove the board.
- ② Insert the Extension Board, EX-326 to the slot of the removed board in step ①.
- ③ Insert the removed board to Extension Board, EX-326.



### 1-9-3. Mesuring Instruments

1. Comosite Signal Generator  
Equivalent: TEK1410/textronix
2. Y/C signal Generartor  
Equivalent: TSG130/textronix
3. Component Signal Generator  
Equivalent: TSG300/textronix
4. Waveform Monitor & Vectorscope (Composite)  
Equivalent: TEK1780R/textronix
5. Video Monitor  
Equivalent: PVM144Q/Sony
6. Oscilloscope  
Equivalent: 2445/textronix
7. Digital voltage meter  
Equivalent: 3435A/Hewlett Packard
8. Frequency counter  
Equivalent: 5315/Hewlett Packard



## 1-10. CONNECT OF SUPPLIED POWER CORD

(UC) Required, Parts

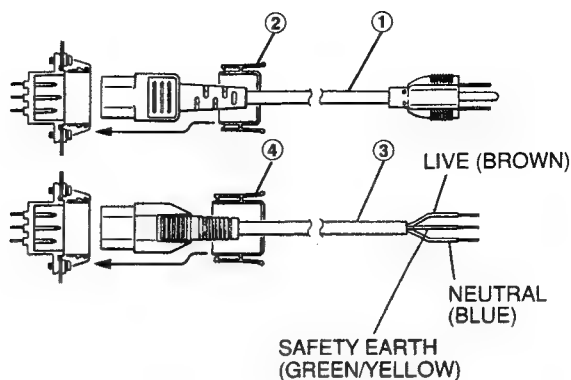
① Power Cord 1-551-812-11

② Plug Holder(Black) 2-990-242-01

(EK) Required, Parts

③ Power Cord 1-590-910-11

④ Plug Holder(Gray) 3-170-078-01



## 1-11. MATCHING CONNECTOR/CABLE

When connecting cable to the connectors on the connector panel, match those connectors or equivalent with each other as listed below.

DFS-500 side connector			Matching Connector or Cable	
Connector Function Name		Using Connector	Connector	Sony Parts No.
PGM OUT	COMPOSITE 1, 2 Y/C 1, 2 COMPONENT 1, 2	BNC S-VIDEO, Plug(F) Plug, 12(F)	BNC S-VIDEO, Plug(M) Plug, 12(M)	1-560-069-11 YC-30 V(3 m) 1-562-995-00
KEY OUT		BNC	BNC	1-560-069-11
BLACK BURST OUT	1, 2, 3, 4	BNC	BNC	1-560-069-11
DSK KEY IN	1, 2	BNC	BNC	1-560-069-11
DSK VIDEO IN	COMPOSITE/G/Y 1, 2 R/R-Y B/B-Y	BNC BNC BNC	BNC BNC BNC	1-560-069-11 1-560-069-11 1-560-069-11
VIDEO INPUTS	COMPOSITE 1, 2, 3, 4 Y/C 1, 2, 3, 4 COMPONENT 1, 2, 3, 4	BNC S-VIDEO, Plug(F) Plug, 12(M)	BNC S-VIDEO, Plug(M) Plug, 12(F)	1-560-069-11 YC-30 V(3 m) 1-562-159-00
EXT KEY IN		BNC	BNC	1-560-069-11
GEN LOCK IN	1, 2	BNC	BNC	1-560-069-11
T1/CUE		BNC	BNC	1-560-069-11
T2		BNC	BNC	1-560-069-11
CONTROL PANEL		D-SUB, Plug 25P(F)	D-SUB, Plug 25P(M)	(*)
EDITOR		D-SUB, Plug 9P(F)	D-SUB, Plug 9P(M)	1-560-651-00

(\*) This connector is attached to the cable of 10 m (1-696-660-11).



## I-12. INPUT/OUTPUT SIGNALS OF CONNECTOR

### PGM(Program)OUT COMPOSITE 1, 2

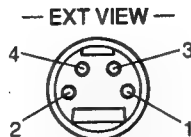
CONNECTOR: BNC

Output voltage: 1.0Vp-p (VBS), (Sync/burst: UC: 0.286Vp-p PAL: 0.3Vp-p)

Output impedance: 75Ω

### PGM(Program)OUT Y/C 1, 2

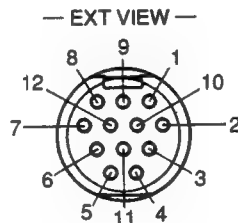
CONNECTOR: S(Separates) terminal 4pin Connector (Female)



Pin No	Signal Name	Function	Specification
1	Y GND	Ground of Luminance Output	Y terminal Output voltage: 1.0Vp-p (VS) (Y Video: 0.714Vp-p, Sync: 0.286Vp-p).....NTSC (Y Video: 0.7Vp-p, Sync: 0.3Vp-p).....PAL Output impedance: 75Ω C terminal Output voltage: 0.681Vp-p.....NTSC 0.64Vp-p.....PAL (100/0/75/0 Color Bars) (Burst: 0.286Vp-p).....NTSC (Burst: 0.3Vp-p).....PAL Output impedance: 75Ω
2	C GND	Ground of Chrominance Output	
3	Y	Luminance Output	
4	C	Chrominance Output	

### PGM(Program)OUT COMPONENT 1, 2

CONNECTOR: Component Video Out 12pin Connector(Female)



Pin No	Signal Name	Function	Specification
1	Y OUT	Luminance Output	Output voltage: 1.0Vp-p (VS) (Y Video: 0.714Vp-p, Sync: 0.286Vp-p).....NTSC (Y Video: 0.7Vp-p, Sync: 0.3Vp-p).....PAL Output impedance: 75Ω
2	GND	Luminance Output Common	
3	R-Y	Chrominance R-Y Output	Output voltage: 0.756Vp-p (100/0/75/0 Color Bars).....NTSC 0.525Vp-p (100/0/75/0 Color Bars).....PAL Output impedance: 75Ω
4	GND	R-Y Output Common	
5	B-Y	Chrominance B-Y Output	
6	GND	B-Y Output Common	
7 thru 12	—	—	—



### KEY OUT

CONNECTOR: BNC

Output voltage: 1.0Vp-p (Sync signal is nothing.)

Output impedance: 75Ω

### BLACK BURST OUT 1,2,3,4

CONNECTOR: BNC

Output voltage: Sync: 0.286Vp-p Burst: 0.286Vp-p.....NTSC

Sync: 0.3Vp-p Burst: 0.3Vp-p.....PAL

Output impedance: 75Ω

### DSK(Down Stream Keyer)KEY IN 1, 2

+

### Through Out

(This connector is function to install the optional board, BKDF-502/502P.)

CONNECTOR: BNC

Input voltage: 0.7 through 1.0Vp-p (Sync signal is nothing)

or 1.0Vp-p (Sync: about 0.3Vp-p)

Input impedance: High impedance or 75Ω (with terminate a 75Ω ON/OFF switch)

### DSK(Down Stream Keyer)VIDEO IN

(This connector is function to the optional board, BKDF-502/502P.)

CONNECTOR: BNC

① When the S102 DSK VIDEO SELECT of DA-63 board is "COMPOSITE" position.

Connector	Function	Specification
COMPOSITE/G/Y	Composite Input (Through out)	Input voltage: 1.0Vp-p (VBS), (Sync/Burst: 0.286Vp-p).....NTSC (Sync/Burst: 0.3Vp-p).....PAL Input Impedance: High impedance or 75Ω (with terminated 75Ω ON/OFF switch)
R/R-Y	_____	_____
B/B-Y	_____	_____



② When the S102 DSK VIDEO SELECT of the DA-63 board is "Y/R-Y/B-Y" position.

Connector	Function	Specification
COMPOSITE/G/Y	Y: Luminance Input	Input voltage: 1.0Vp-p (VS), (Sync: 0.286Vp-p).....NTSC (Sync: 0.3Vp-p).....PAL Input Impedance: High impedance or 75Ω (with terminated 75Ω ON/OFF switch)
R/R-Y	Color differential signal R-Y: Chrominance Input	Input voltage: 0.756Vp-p (100/0/75/0 Color Bars).....NTSC 0.525Vp-p (100/0/75/0 Color Bars).....PAL Input impedance: 75Ω
B/B-Y	Color differential signal B-Y: Chrominance Input	

③ When the S102 DSK VIDEO SELECT of the DA-63 board is "R/G/B" position.

Connector	Function	Specification
COMPOSITE/G/Y	G: RGB Signal G Input (with Sync)	Input voltage: 1.0Vp-p (G signal: 0.7Vp-p + Sync: 0.3Vp-p) Input impedance: High impedance or 75Ω (with terminated 75Ω ON/OFF switch)
R/R-Y	R: RGB Signal R Input	Input voltage: 0.7Vp-p Input impedance: 75Ω
B/B-Y	B: RGB Signal B Input	

#### VIDEO INPUTS COMPOSITE 1,2,3,4

CONNECTOR: BNC

Input voltage: 1.0Vp-p (VBS)  
(Sync/Burst: 0.286Vp-p).....NTSC  
(Sync/Burst: 0.3Vp-p).....PAL  
Input impedance: 75Ω

#### VIDEO INPUTS Y/C 1, 2, 3, 4

CONNECTOR: S(Separates) terminal 4pin Connector (Female)

— EXT VIEW —

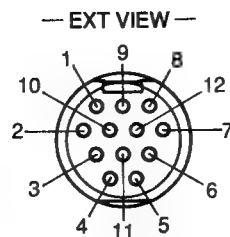


Pin No	Signal Name	Function	Specification
1	Y GND	Ground of Luminance Input	Y terminal input voltage: 1.0Vp-p (VS) (Y Video: 0.714Vp-p, Sync: 0.286Vp-p).....NTSC (Y Video: 0.7Vp-p, Sync: 0.3Vp-p).....PAL Input impedance: 75Ω C terminal input voltage: 0.681Vp-p (100/0/75/0 Color Bars) (Burst: 0.286Vp-p).....NTSC (Burst: 0.3Vp-p).....PAL Input impedance: 75Ω
2	C GND	Ground of Chrominance Input	
3	Y	Luminance Input	
4	C	Chrominance Input	



# VIDEO INPUTS COMPONENT 1, 2, 3, 4

CONNECTOR: Component Video In 12pin Connector(Male)



Pin No	Signal Name	Function	Specification
1	CPN Y	Luminance Input	Input voltage: 1.0 Vp-p (Y Video: 0.714Vp-p, Sync: 0.286Vp-p).....NTSC (Y Video: 0.7Vp-p, Sync: 0.3 Vp-p).....PAL Input impedance: 75Ω
2	GND	Luminance Input Common	
3	CPN V	Chrominance R-Y Input	Input voltage: 0.756Vp-p (100/0/75/0 Color Bars).....NTSC 0.525Vp-p (100/0/75/0 Color Bars).....PAL Input impedance: 75Ω
4	GND	R-Y Input Common	
5	CPN U	Chrominance B-Y Input	
6	GND	B-Y Input Common	
7 thru 9	—	—	—
10	GND	Ground	—
11 thru 12	—	—	—

## EXT KEY IN

CONNECTOR: BNC

Input voltage: 0.7 through 1.0Vp-p (The voltage of Sync is nothing)  
or 1.0Vp-p (Sync: about 0.3Vp-p)

Input impedance: 75Ω

## GEN LOCK IN 1, 2

+ Through Out

CONNECTOR: BNC

Input voltage: 0.43Vp-p (BB), (Sync/Burst: 0.286Vp-p) ...NTSC  
(Sync: 0.3Vp-p Burst: 0.3Vp-p) ...PAL

Input impedance: High impedance or 75Ω (with terminated 75Ω ON/OFF switch)

## T1/CUE, T2

CONNECTOR: BNC

Input voltage: TTL level

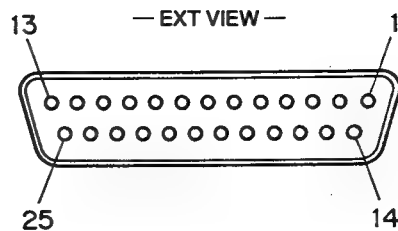
Input impedance: 75Ω





CONTROL PANEL(PROCESS UNIT SIDE)

CONNECTOR: D-SUB 25P(Female)

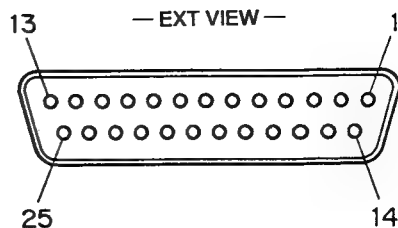


Pin No	Signal name	Function	Specification
1	GND	Frame Ground	<div>Definition of A and B</div> <div></div> <div>A &lt; B → "1" (MARK) A &gt; B → "0" (SPACE)</div>
2	DC CON	12V Output	
3	KRD+	Receive Data "B"	
4	GND	Receive Common	
5	KTD+	Transmit Data "B"	
6	GND	Transmit common	
7	RVD+	Transmit VD "B"	
8 thru 11	NOT USED		
12	GND	Ground	
13	GND	Ground	
14	DC CON	12V Output	
15	DC CON	12V Output	
16	KRD-	Receive Data "A"	
17	GND	Receive Common	
18	KTD-	Transmit Data "A"	
19	GND	Transmit Common	
20	RVD-	Transmit VD "A"	
21 thru 24	NOT USED		
25	GND	Frame Ground	



# CONTROL PANEL (CONTROL PANEL SIDE)

CONNECTOR: D-SUB 25P(Female)



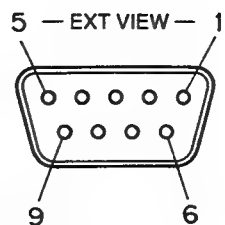
Pin No	Signal name	Function	Specification
1	FG	Frame Ground	<p>Definition of A and B</p> <p>A &lt; B → "1" (MARK) A &gt; B → "0" (SPACE)</p>
2	+12 V	12 V Input	
3	MIT+	Transmit Data "B"	
4	GND	Transmit common	
5	RCV+	Receive Data "B"	
6	GND	Receive Common	
7	RVD+	Receive VD "B"	
8	NOT USED		
9	+12 V PS	ICP PASS 12 V INPUT	
10	+12 V PS	ICP PASS 12 V INPUT	
11	NOT USED		
12	GND	Ground	
13	GND	Ground	
14	+12 V	12 V Input	
15	+12 V	12 V Input	
16	MIT-	Transmit Data "A"	
17	GND	Transmit Common	
18	RCV-	Receive Data "A"	
19	GND	Receive Common	
20	RVD-	Receive VD "A"	
21 thru 24	NOT USED		
25	FG	Frame Ground	





EDITOR CONNECTOR

CONNECTOR: D-SUB 9P(Female)

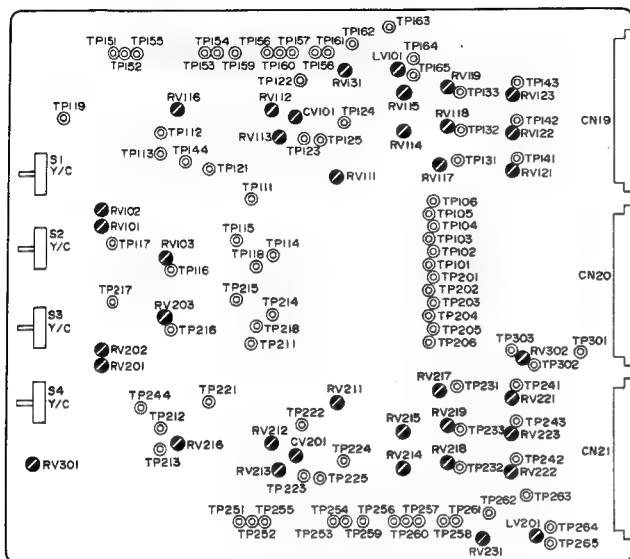


Pin No	Signal name	Function	Specification
1	GND	Frame Ground	<div>Definition of A and B</div> <div></div> <div>A &lt; B → "1" (MARK) A &gt; B → "0" (SPACE)</div>
2	XMIT-	Transmit "A"	
3	RCV+	Receive "B"	
4	GND	Receive Common	
5	NOT USED		
6	GND	Transmit Common	
7	XMIT+	Transmit "B"	
8	RCV-	Receive "A"	
9	GND	Frame Ground	



## 1-13. EXPLAIN OF SWITCH/INDICATOR/ VOLUME

### AD-76 BOARD (A side)



#### Volume

- CV101(C7): A COLOR F LOCK trimmer capacitor  
Adjust the A-CH chroma decoder color lock.
- CV201(L7): B COLOR F LOCK trimmer capacitor  
Adjust the B-CH chroma decoder color lock.
- LV101(B10): A VFO BIAS coil  
Adjust the A-CH VFO control voltage centering.
- LV201(N13): A VFO BIAS coil  
Adjust the B-CH VFO control voltage centering.
- RV101(E2): A CPST Y GAIN control  
Adjust the A-CH Y gain of the composite input.
- RV102(E2): A CPST C GAIN control  
Adjust the A-CH chroma level of the composite input.
- RV103(F4): A APC LOCK control  
Adjust the A-CH burst lock of the digital Y/C separated clock.
- RV111(D8): A SEP Y GAIN control  
Adjust the A-CH S input Y gain.
- RV112(C7): A SEP C GAIN control  
Adjust the A-CH chroma S input gain.
- RV113(C7): A CPST & SEP HUE control  
Perform the HUE adjustment of the A-CH composite signal and the S input signal.
- RV114(C10): A CPST & SEP R-Y GAIN control  
Adjust the A-CH R-Y gain of composite signal and the S input signal.
- RV115(B10): A CPST & SEP B-Y GAIN control  
Adjust the A-CH composite signal and the S input B-Y gain.

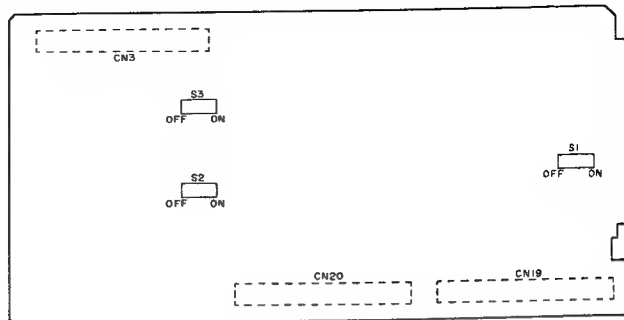
- RV116(C4): A INT BURST LEVEL control  
Adjust the internal generation burst level when the A-CH is no signal.
- RV117(D11): A CPNT Y GAIN control  
Adjust the A-CH Y gain of component input.
- RV118(C11): A CPNT R-Y GAIN control  
Adjust the A-CH R-Y gain of component input.
- RV119(B11): A CPNT B-Y GAIN control  
Adjust the A-CH B-Y gain of the component input.
- RV121(D12): A Y DC control  
Adjust the A-CH Y pedestal DC of the A/D converter.
- RV122(C12): A R-Y DC control  
Adjust the A-CH R-Y DC of the A/D converter.
- RV123(B12): A B-Y DC control  
Adjust the A-CH B-Y DC of the A/D converter.
- RV131(B9): A W HD PHASE control  
Adjust the A-CH H timing of the memory writing.
- RV201(J2): B CPST Y GAIN control  
Adjust the B-CH Y gain of the composite input.
- RV202(H2): B CPST C GAIN control  
Adjust the B-CH chroma level of the composite input.
- RV203(H4): B APC LOCK control  
Adjust the B-CH burst lock of the digital Y/C separator clock.
- RV211(K8): B SEP Y GAIN control  
Adjust the B-CH Y gain of the S input signal.
- RV212(L7): B SEP C GAIN control  
Adjust the B-CH chroma gain of the S input signal.
- RV213(L7): B CPST & SEP HUE control  
Perform the HUE adjustment of the B-CH composite signal and the S input signal.
- RV214(L10): B CPST & SEP R-Y GAIN control  
Adjust the B-CH R-Y gain of the composite signal and the S input signal.
- RV215(K10): B CPST & SEP B-Y GAIN control  
Adjust the B-CH B-Y gain of the composite signal and the S input signal.
- RV216(K4): B INT BURST LEVEL control  
Adjust the internal generation burst level when the B-CH is no input signal.
- RV217(J11): B CPNT Y GAIN control  
Adjust the B-CH Y gain of the component input signal.
- RV218(L11): B CPNT R-Y GAIN control  
Adjust the B-CH R-Y gain of the component input signal.
- RV219(K11): B CPNT B-Y GAIN control  
Adjust the B-CH B-Y gain of the component input signal.
- RV221(J12): B Y DC control  
Adjust the B-CH Y pedestal DC of the A/D converter.



- RV222(K12): B R-Y DC control  
Adjust the B-CH R-Y DC of the A/D converter.
- V223(L12): B B-Y DC control  
Adjust the B-CH B-Y DC of the A/D converter.
- RV231(N12): B W HD PHASE control  
Adjust the B-CH H timing of the memory writing.
- V301(L1): EXT KEY CLIP control  
Adjust the slice level of the TITLE (EXT KEY) input signal.
- V302(J13): EXT KEY DELAY FINE control  
Perform fine adjustment of the TITLE (EXT KEY) delay value.

- Switch
- S1(D1): VIDEO INPUT1
- S2(F1): VIDEO INPUT2
- S3(H1): VIDEO INPUT3
- S4(K1): VIDEO INPUT4  
(Input signal format selection) switch  
Select the format of the signal for connecting to the VIDEO INPUTS connectors 1 through 4.  
COMPOSITE: composite video signal  
Y/C: Y/C video signal  
COMPONENT: component video signal  
When the unit is shipped, all of the switches are set to the COMPOSITE position.

#### CN-573 BOARD (A side)

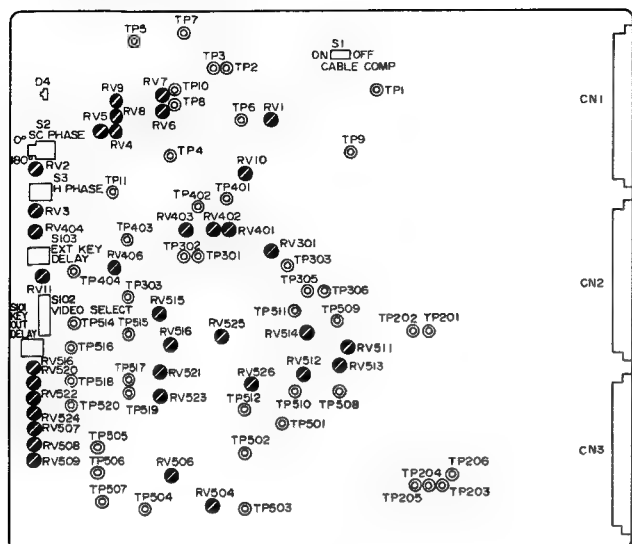


#### Switch

- S1(E3): 75Ω terminated switch  
This switch is GEN LOCK INPUT 75Ω terminated switch.  
When the unit is shipped, this switch is set to the ON position.
- S2(B3): 75Ω terminated switch  
This switch is DSK VIDEO INPUT 75Ω terminated switch.  
When the unit is shipped, this switch is set to the ON position.
- S3(B2): 75Ω terminated switch  
This switch is DSK KEY INPUT 75Ω terminated switch.  
When the unit is shipped, this switch is set to the ON position.



## DA-63 BOARD (A side)



### Indicator

**D4(B14):** GEN LOCK IN indicator (red)  
This indicator shows if the external synchronizing signal (the black burst signal) is input to the GEN LOCK IN connector on the rear panel.

**ON (Red light):** GEN LOCK mode lights red when the external synchronizing signal (the black burst signal) is input to the GEN LOCK IN connector on the rear panel.

The synchronizing signal generator of this unit synchronizes to external synchronizing signal automatically.

**OFF (light off):** Lights off when the external synchronizing signal (the black burst signal) is not input to the GEN LOCK IN connector on the rear panel. The synchronizing signal generator of this unit is the internal oscillator.

### Volume

**RV1(B8):** INT SC FREQUENCY control  
Adjust the SC frequency when internal signal oscillation of synchronized signal generator on this board.

**RV2(D14):** GEN LOCK SC PHASE FINE control  
Perform the fine adjustment of the SC phase when the external synchronization.

**RV3(E14):** GEN LOCK H PHASE FINE control  
Perform the fine adjustment of the H phase when external synchronization.

**RV4(C12):** INT CLAMP PULSE PHASE control  
Adjust the phase of the internal generation clamp pulse.

**RV5(C12):** INT CLAMP PULSE WIDTH control  
Adjust the width of the internal generation clamp pulse.

**RV6(B11):** PGM OUT (COMPOSITE, Y/C, COMPONENT) BLANKING WIDTH control  
Adjust the blanking width of PGM OUT (COMPOSITE, Y/C, COMPONENT).

**RV7(B11):** PGM OUT (COMPOSITE, Y/C, COMPONENT) BLANKING PHASE control  
Adjust the blanking phase of PGM OUT (COMPOSITE, Y/C, COMPONENT).

**RV8(B12):** BURST WIDTH control  
Adjust the burst width of PGM OUT (COMPOSITE, Y/C) and B.B OUT.

**RV9(B12):** BURST PHASE control  
Adjust the burst phase on PGM OUT (COMPOSITE, Y/C) and B.B OUT.

**RV10(D9):** INT SC PHASE control  
Adjust the SC phase when the internal oscillation of synchronized signal generator on this board.

**RV11(F14):** DSK EXT KEY CLIP control  
Adjust the clip level of signal for connecting the DSK KEY IN connector.  
When the unit is shipped, this volume is set to the mechanical center position.

**RV301(E8):** ENCODER MODULATION AXIS control  
Adjust so that the modulation axes (the R-Y axis and the B-Y axis) are crossed perpendicularly by encoding the PGM OUT (COMPOSITE, Y/C) and B.B OUT.

**RV401(E9):** B.B OUT BURST BALANCE control  
Adjust so that the burst level of every B.B OUT line is same level. (for EK)

**RV402(E10):** B.B OUT SUB CARRIER LEAK BALANCE (B-Y) control  
Adjust the sub carrier balance of the B.B OUT encoder B-Y axis.

**RV403(E10):** B.B OUT SUB CARRIER LEAK BALANCE (R-Y) control  
Adjust the sub carrier balance of the B.B OUT encoder R-Y axis. (for EK)

**RV404(E14):** B.B OUT GAIN control  
Adjust the gain value of the B.B OUT. In fact this control is matched by burst level.

**RV406(F12):** B.B OUT SYNC LEVEL control  
Adjust the sync level of the B.B OUT.

**RV504(L10):** PGM OUT (COMPOSITE, Y/C) SYNC LEVEL control  
Adjust the sync level of the PGM OUT (COMPOSITE, Y/C).

**RV506(L11):** PGM OUT (COMPOSITE, Y/C) CHROMA GAIN control  
Adjust the chroma gain value of the PGM OUT (COMPOSITE, Y/C). In fact the volume is matched by level of the R-Y axis.

**RV507(K14):** PGM OUT (COMPOSITE) GAIN control  
Adjust the gain value of the PGM OUT (COMPOSITE). In fact the volume is matched by the luminance level.





RV508(K14): PGM OUT(Y/C)Y GAIN control  
Adjust the gain value of the PGM OUT (Y/C) luminance signal(Y).

V509(K14): PGM OUT(Y/C)C GAIN control  
Adjust the gain value of the PGM OUT(Y/C) chroma signal(C).

V511(H7): PGM OUT(COMPOSITE,Y/C)SUB CARRIER LEAK BALANCE(R-Y) control  
Adjust the sub carrier balance of the PGM OUT(COMPOSITE,Y/C) encoder R-Y axis.

V512(H8): PGM OUT(COMPOSITE,Y/C) B-Y AXIS GAIN control  
Adjust the gain value of the PGM OUT (COMPOSITE,Y/C) encoder B-Y axis.

V513(H7): PGM OUT (COMPOSITE,Y/C) BURST BALANCE control  
Adjust so that the burst level of every PGM OUT line (COMPOSITE,Y/C) is same level. (for EK)

RV514(H8): PGM OUT(COMPOSITE,Y/C)SUB CARRIER LEAK BALANCE(B-Y) control  
Adjust the sub carrier balance of the PGM OUT (COMPOSITE,Y/C) encoder B-Y axis.

RV515(G11): KEY OUT DELAY FINE control  
Perform the fine adjustment of the delay value of the KEY OUT.  
In fact turn this volume mechanical center.

RV516(H14): KEY OUT GAIN control  
Adjust the gain value of the KEY OUT.

V518(H11): PGM OUT(COMPONENT) SYNC LEVEL control  
Adjust the sync level of the PGM OUT (COMPONENT) Y signal.

V520(J14): PGM OUT(COMPONENT)Y GAIN control  
Adjust the gain value of the PGM OUT(COMPONENT) Y signal.

V521(H11): PGM OUT(COMPONENT)R-Y DELAY control  
Adjust the delay value of the PGM OUT (COMPONENT) Y signal corresponding to the R-Y signal.

V522(J14): PGM OUT (COMPONENT)R-Y GAIN control  
Adjust the gain value of the PGM OUT(COMPONENT) R-Y signal.

V523(J11): PGM OUT(COMPONENT)B-Y DELAY control  
Adjust the delay value of the PGM OUT(COMPONENT) B-Y signal corresponding to Y signal.

V524(J14): PGM OUT(COMPONENT)B-Y GAIN control  
Adjust the gain value of the PGM OUT(COMPONENT) B-Y signal.

V525(H10): PGM OUT(COMPOSITE,Y/C)BURST LEVEL control  
Adjust the burst level of the PGM OUT (COMPOSITE,Y/C).

RV526(H9): PGM OUT(COMPOSITE,Y/C)Y/C DELAY control  
Adjust the delay value of the PGM OUT(COMPOSITE,Y/C) luminance signal (Y) corresponding to the chroma signal(C).  
In fact turn this volume the middle of left fully and mechanical center.

Switch

S1(A7): CABLE COMPENSATION ON/OFF switch  
This switch is the GAIN lower compensation for the long cable.

ON: The GAIN of the input signal (GEN LOCK signal) rises about 6dB.

When the unit is shipped, this switch is set to the OFF position.

S2(C14): GEN LOCK SC PHASE COARSE (0° 180°)switch

Change the setting reverses the external sync SC phase by about 180°.

When the unit is shipped, this switch is set to the "0°" position.

S3(D14): GEN LOCK H PHASE COARSE ADJ. switch  
Perform the tentative adjustment of external sync H phase.

The H phase can be changed in sixteen steps with units of about 280ns.

When the unit is shipped, this switch is set to the 3 position.

S101(H14): KEY OUT DELAY COARSE ADJ. switch  
Adjust the delay value of the KEY OUT corresponding to the PGM OUT.

The delay value can be changed in sixteen steps with units of about 70ns.

When the unit is shipped, this switch is set to the "5" position.

S102(G14): DSK VIDEO FORMAT SELECT switch  
This switch can be changed to match the format of signal which is connected to the DSK VIDEO IN connector.

COMPOSITE: composite video signal

Y/R-Y/B-Y: luminance Y signal and color difference signal(R-Y/B-Y)

R/G/B: RGB signal

When the unit is shipped, this switch is set to the R/G/B position.

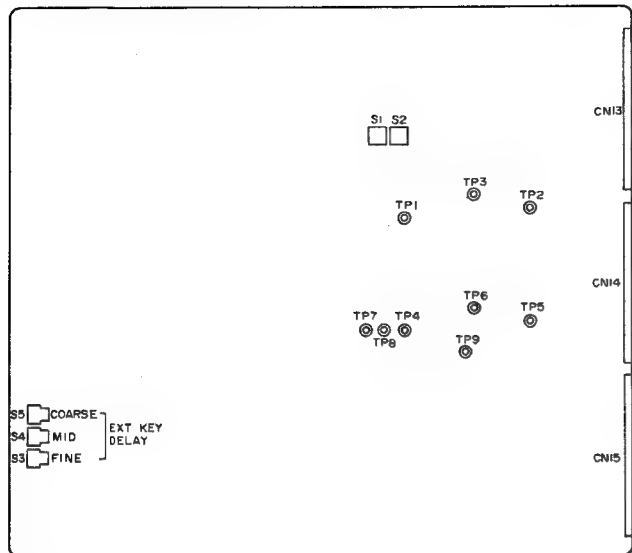
S103(F14): DSK EXT KEY DELAY ADJ.switch  
Adjust the delay value of the DSK KEY IN corresponding to the DSK VIDEO IN.

The delay value can be changed in sixteen steps with units of about 70ns.

When the unit is shipped, this switch is set to the "6" position.



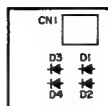
## FM-29 BOARD (A side)



### Switch

- S1(H3):** MEMORY LIGHT TIMING (FINE) switch  
Adjust the timing of level direction memory writing of frame synchro memory.  
When the unit is shipped, this switch is set to the following position.  
UC : 2  
EK : 6  
As the switch is set to suitable position when the unit is shipped, do not touch the switch.
- S2(J3):** MEMORY LIGHT TIMING (COARSE) switch  
Adjust the timing of level direction memory writing of frame synchro memory.  
When the unit is shipped, this switch is set to the following position.  
UC : 4  
EK : 4
- S3(A10):** TITLE EXT KEY DELAY (FINE) switch  
Adjust the delay value of the EXT KEY in the TITLE mode.  
When the unit is shipped, this switch is set to the following position.  
UC : D  
EK : E
- S4(A9):** TITLE EXT KEY DELAY (MED) switch  
Adjust the delay value of the EXT KEY in the TITLE mode.  
When the unit is shipped, this switch is set to the following position.  
UC : 6  
EK : 5
- S5(A9):** TITLE EXT KEY DELAY (COARSE) switch  
Adjust the delay value of the EXT KEY in the TITLE mode.  
When the unit is shipped, this switch is set to the following position.  
UC : 6  
EK : 6

## LE-55 BOARD (A side)



### Indicator

- D1:** POWER indicator (Yellow)  
Lights when the Power is turned on.
- D2:** POWER indicator (Yellow)  
Lights when the Power is turned on.
- D3:** POWER indicator (Yellow)  
Lights when the Power is turned on.
- D4:** POWER indicator (Yellow)  
Lights when the Power is turned on.



Diagram showing the layout of the circuit board with various components labeled:

- TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP33, TP34, TP35, TP36, TP37, TP38, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46, TP47, TP48, TP49, TP50, TP51, TP52, TP53, TP54, TP55, TP56, TP57, TP58, TP59, TP60, TP61, TP62, TP63, TP64, TP65, TP66, TP67, TP68, TP69, TP70, TP71, TP72, TP73, TP74, TP75, TP76, TP77, TP78, TP79, TP80, TP81, TP82, TP83, TP84, TP85, TP86, TP87, TP88, TP89, TP90, TP91, TP92, TP93, TP94, TP95, TP96, TP97, TP98, TP99, TP100, TP101, TP102, TP103, TP104, TP105, TP106, TP107, TP108, TP109, TP110, TP111, TP112, TP113, TP114, TP115, TP116, TP117, TP118, TP119, TP120, TP121, TP122, TP123, TP124, TP125, TP126, TP127, TP128, TP129, TP130, TP131, TP132, TP133, TP134, TP135, TP136, TP137, TP138, TP139, TP140, TP141, TP142, TP143, TP144, TP145, TP146, TP147, TP148, TP149, TP150, TP151, TP152, TP153, TP154, TP155, TP156, TP157, TP158, 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TP731, TP732, TP733, TP734, TP735, TP736, TP737, TP738, TP739, TP740, TP741, TP742, TP743, TP744, TP745, TP746, TP747, TP748, TP749, TP750, TP751, TP752, TP753, TP754, TP755, TP756, TP757, TP758, TP759, TP760, TP761, TP762, TP763, TP764, TP765, TP766, TP767, TP768, TP769, TP770, TP771, TP772, TP773, TP774, TP775, TP776, TP777, TP778, TP779, TP780, TP781, TP782, TP783, TP784, TP785, TP786, TP787, TP788, TP789, TP790, TP791, TP792, TP793, TP794, TP795, TP796, TP797, TP798, TP799, TP800, TP801, TP802, TP803, TP804, TP805, TP806, TP807, TP808, TP809, TP810, TP811, TP812, TP813, TP814, TP815, TP816, TP817, TP818, TP819, TP820, TP821, TP822, TP823, TP824, TP825, TP826, TP827, TP828, TP829, TP830, TP831, TP832, TP833, TP834, TP835, TP836, TP83

**1(E1):**

Adjust the position of the page lighting.  
When the unit is shipped, the switch is set to the "3" position.

Do not touch the switch for it is set suitable position when the unit is shipped.

2(C1):

**PAGE TURN LIGHTING POSITION switch**  
Adjust the position of the page lighting.  
When the unit is shipped, the switch is set to the "9" position.

Do not touch the switch for it is set suitable position when the unit is shipped.

O  
B  
I  
F

S2  
RM-450 TIMING

(L) S1  
CONTROL  
SELECT

(R)

TP1

TP2

TP3

TP4

TP5

S3

CN6

CN7

CN8

**S1(A4):**

**SELECT EDITING CONTORL UNIT switch**  
Select the editing control unit.(BVE-600, RM-450, ONE-GPI, BVE-900 and BVS-3000)

When the unit is shipped, the switch is set to the "BVE-900" position.

**S2(A3):**

**FREEZE TIMING switch**

**Adjust the freeze point, if DFS-500 with RM-450.**

When the unit is shipped, the switch is set to the "8" position.

**S3-1(L10):**

**FREEZE switch** (When changing the cross point)

ON:2 Frames OFF:0 Frame

When the unit is shipped, the switch is set to the ON position.

**S3-2(L10):**

**SET UP switch**

ON:7.5% OFF: 0%

When the unit is shipped, the switch is set to the OFF position.

**S3-3(L10):**

**COLOR-MATTE COMPENSATION** switch

ON:Illegal compensation

OFF:Limit compensation

**When the unit is shipped, the switch is set to the OFF position.**

**S3-4(L10):**

FIELD FREEZE switch

ON:Odd Field OFF:Even Field

When the unit is shipped, the switch is set to the OFF position.

(NOTE1) If the input signal is asynchronous, S3-1 is set definitely to ON position.

(NOTE2) If the editing control unit is BVE-600, S3-4 is set definitely to OFF position.



## 1-14. NOTES ON SPARE PARTS

### 1-14-1. Notes on Spare Parts

#### (1) Safety Related Components Warning

Components marked with  $\Delta$  on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.

Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

#### (2) Standardization of Parts

Spare parts supplied from Sony Parts Center may not always be identical with the parts actually in use due to accommodating the improved parts and/or engineering changes or standardization of genuine parts.

This manual's exploded views and electrical spare parts list indicate the part numbers of the standardized genuine parts at present.

#### (3) Stock of Part

Parts marked with "o" in the SP(Supply code)column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional time for delivery.

#### (4) Units for Capacitors, Inductors and resistors

The following units may be assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitor:  $\mu F$

Inductor :  $\mu H$

Resistor :  $\Omega$

### 1-14-2. Replacement of Chip Parts

#### Required Tools

Soldering iron : 20W

If possible, use a soldering-iron tip heatcontroller set to  $270 \pm 10^\circ C$ .

Braided wire : Solder Taul or equivalent

Sony part No. 7-641-300-81

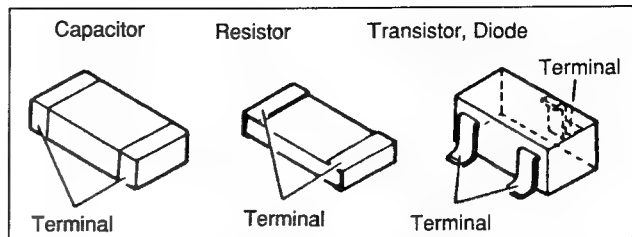
Solder : 0.6mm dia. is recommended.

Tweezers

#### Soldering Conditions

Soldering iron temperature :  $270 \pm 10^\circ C$

Soldering time : Less than 2 seconds  
per pin



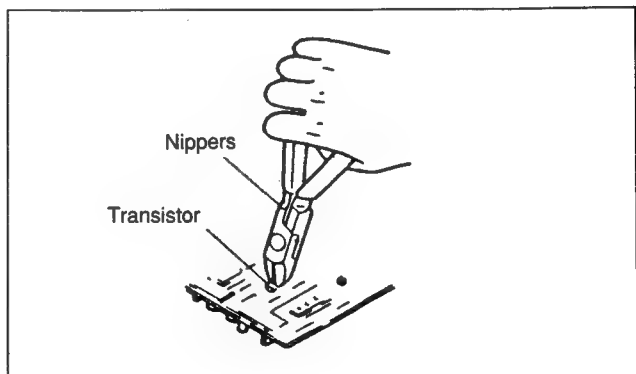
#### Replacement of Resistor and Capacitor

1. Place the soldering-iron tip onto the chip part and heat it up until the solder is melted. When the solder is melted, slide the chip part aside.
2. Make sure that there is no pattern peeling, damage and/or bridge around the desoldering position.
3. After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
4. Place new chip part in the desired position and solder both ends.

**NOTE:** Do not use a chip part again once it has been removed.

#### Replacement of Transistors and Diodes

1. Cut the terminals of the chip part with nippers.
2. Remove the cut leads with soldering iron as above.
3. Make sure that there is no pattern peeling, damage and/or bridge around the desoldering positions.
4. After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
5. Place new chip part in the desired position and solder the terminals.





### Replacement of ICs

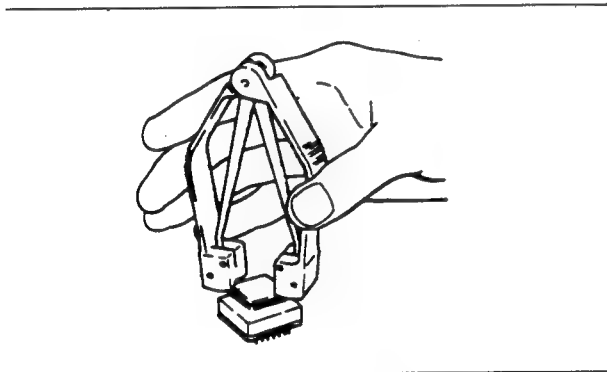
1. Using the braided wire, "SOLDER TAUL" (Sony Part No. 7-641-300-81), remove the solder around the pins of the IC-chip to be removed.
2. While heating up the pins, remove the pins one by one using sharp-pointed tweezers.  
Make sure that there is no pattern peeling, damage and/or bridge around the desoldering position.
4. After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
- Place new chip part in the desired position and solder the pins.

### 14-3. Removal of PLCC IC

#### PLCC socket Extracation Tool

Sony Part No. J-6035-070-A

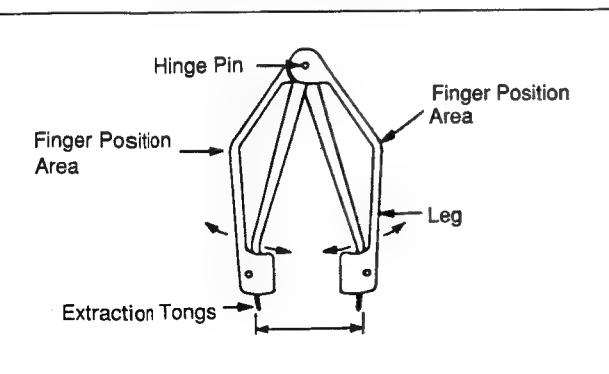
This extraction tool is useful for extracting the IC (PLCC type) inserted into an IC socket, and fits all sizes of ICs from 20 pins through 124 pins.



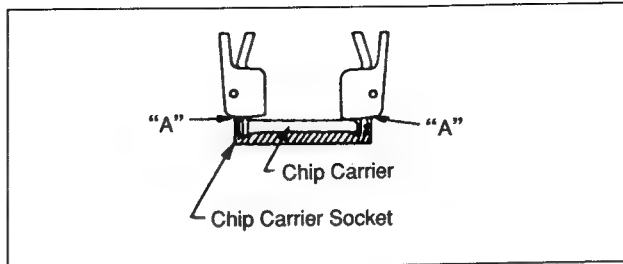
**NOTE:** Do not try to pull chip carrier out of socket and let the tool action pull it out. Do not squeeze harder than necessary, only enough that the tool action occurs.

#### How to use the Extracation Tool]

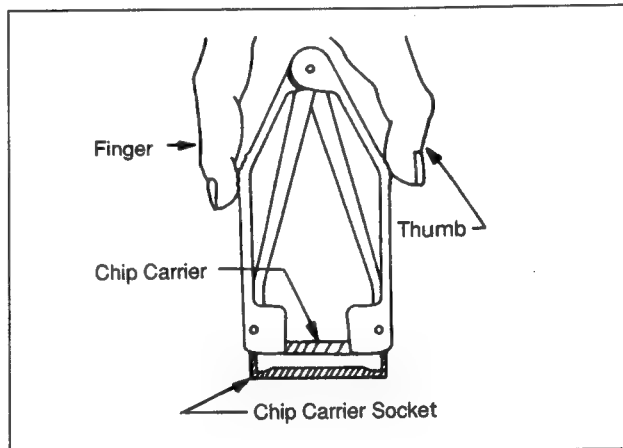
1. Spread or compress the tool legs so the tongs will fit into the slots of the chip carrier socket.



2. Insert the tool tongs into the slots of the carrier socket. Push fully in so that the tool butts on the socket at "A".



3. Place the thumb and the first and second finger on the ribbed area of the tool. Maintain a small downward force to keep the tool butted on the socket. Squeeze the thumb and finger together so that the tool legs tend to straighten. This action will draw the chip carrier out of the socket and grip it within the tool legs. Maintain the squeezing action so as to hold the chip in the tool, hold the tool over your other hand and relax the squeeze. The chip will fall out of the tool and into your hand.





#### 1-14-4. Replacement of Backup Battery

DFS-500 has a backup battery (Nickel-Cadmium Battery) on the SY-172 board.

This backup battery can register the settings on the control panel (snap shot) and store the effects created by user (user program).

Backup Battery: Nickel-Cadmium Battery

Sony Parts No. 1-528-202-11

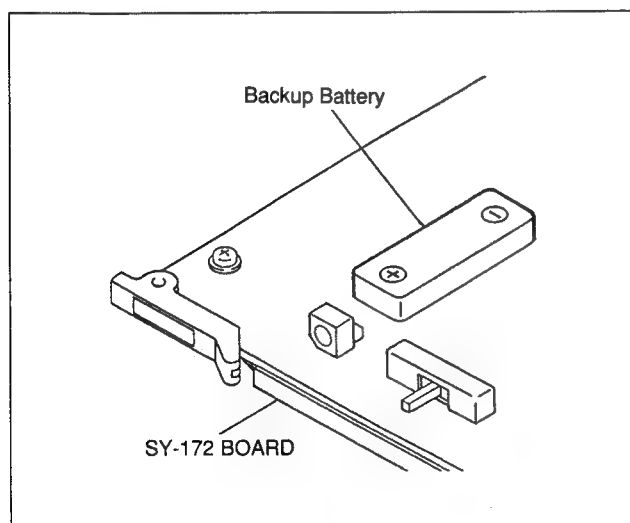
**NOTE:** This backup battery is charged automatically on normal operation for about eight hour. If it is not used for long time (about more than one month), the backup battery consumes. As a result, the following setting (1) through (4) and data is disappeared, and they are initialized. At that time, charge the backup battery.

- (1) Resume function (The setting recovery when turning the power OFF.)
- (2) Data of user program
- (3) Data of snap shot
- (4) Direct pattern assign function

If the unit serves for about five year, the backup battery should be replaced. At this time, the following setting (1) through (4) and data is disappeared, and they are initialized. After replacement, charge the backup battery.

##### Replacement Procedure

- ① Remove eight screws (+PTTWH 3 × 6), and remove the shield plate.
- ② Unsolder two soldering parts, and replace the backup battery.
- ③ After replacing the backup battery, and solder it.



#### 1-14-5. Replacement of Fuse

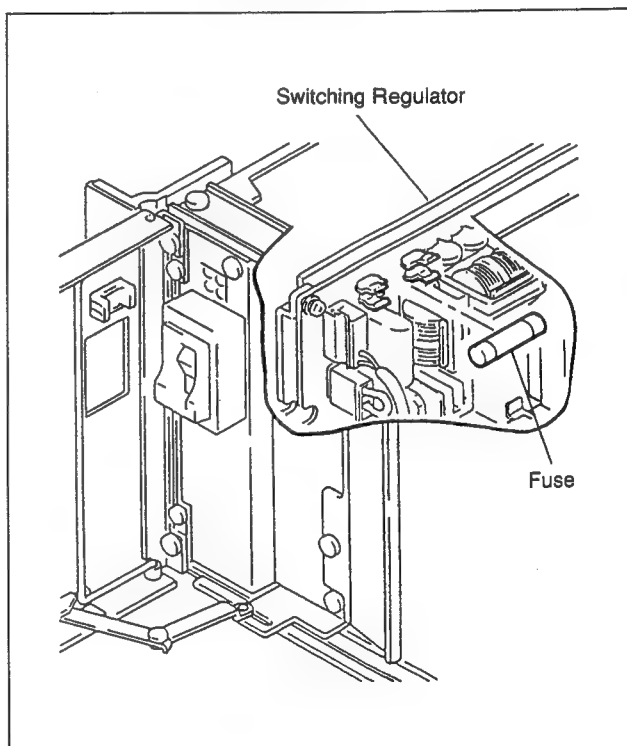
The fuse is mounted on the switching regulator. This fuse melted when the too much electric current flows by unusual instrument.

Before replacing the fuse, check the trouble of fuse.

##### Replacement Procedure

Before replacement of Fuse, take out the cause of short for unit.

- ① Remove the top panel. (Refer to "Section 1-1 REMOVAL OF CABINET" Top Panel.)
- ② Remove the fuse on the switching regulator from the holder.
- ③ Replace a new fuse.  
Fuse: (for UC) GGL10 250V10A  
Sony parts No. 9-903-804-01  
Fuse: (for EK) S506-6.3A COLOR  
Sony parts No. 9-903-806-01

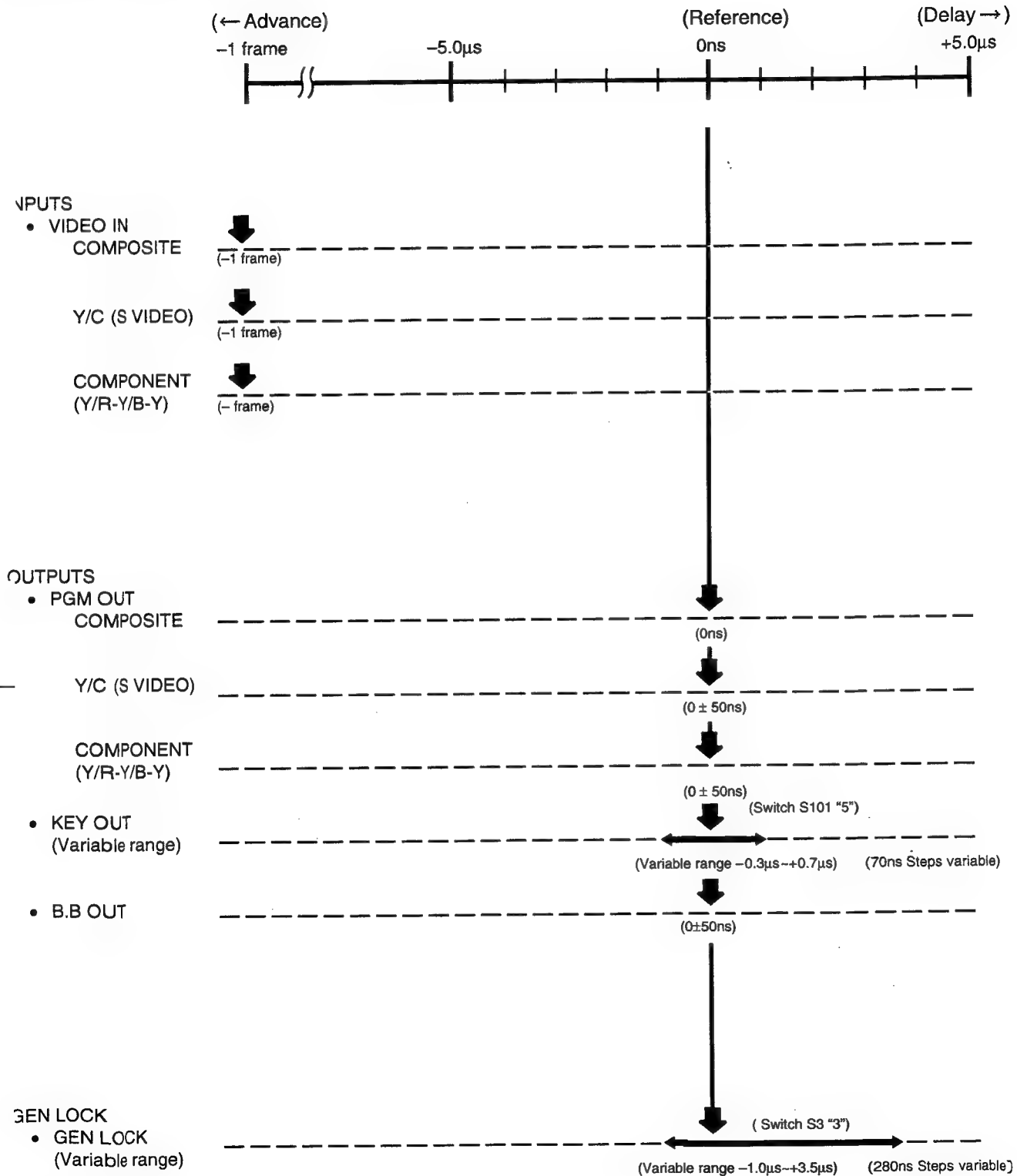




## 1-15. TIMING CHART

### -15-1. System Timing

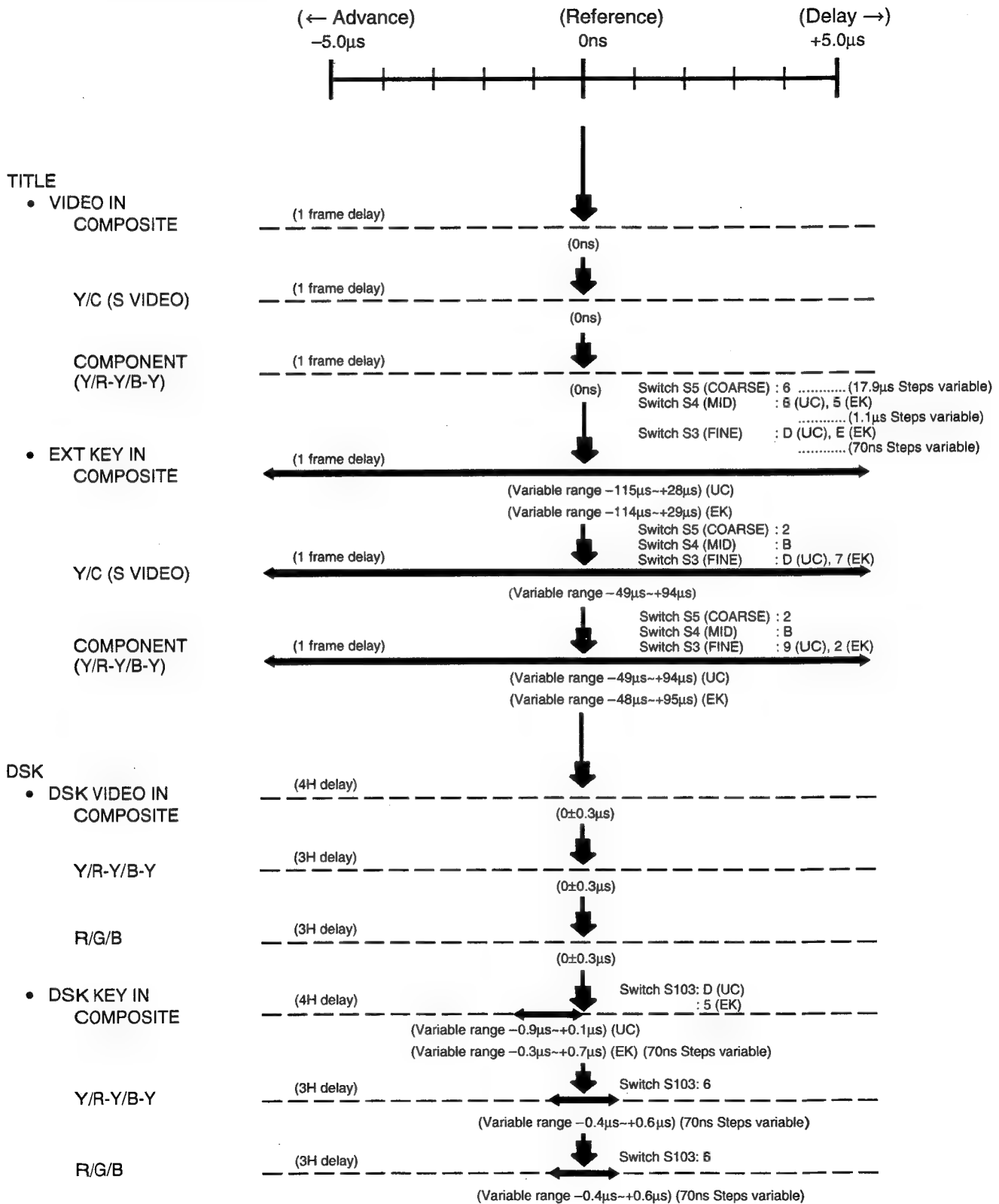
REFERENCE: PGM OUT (COMPOSITE)





## 1-15-2. Timing of TITLE and DSK (Video Phase)

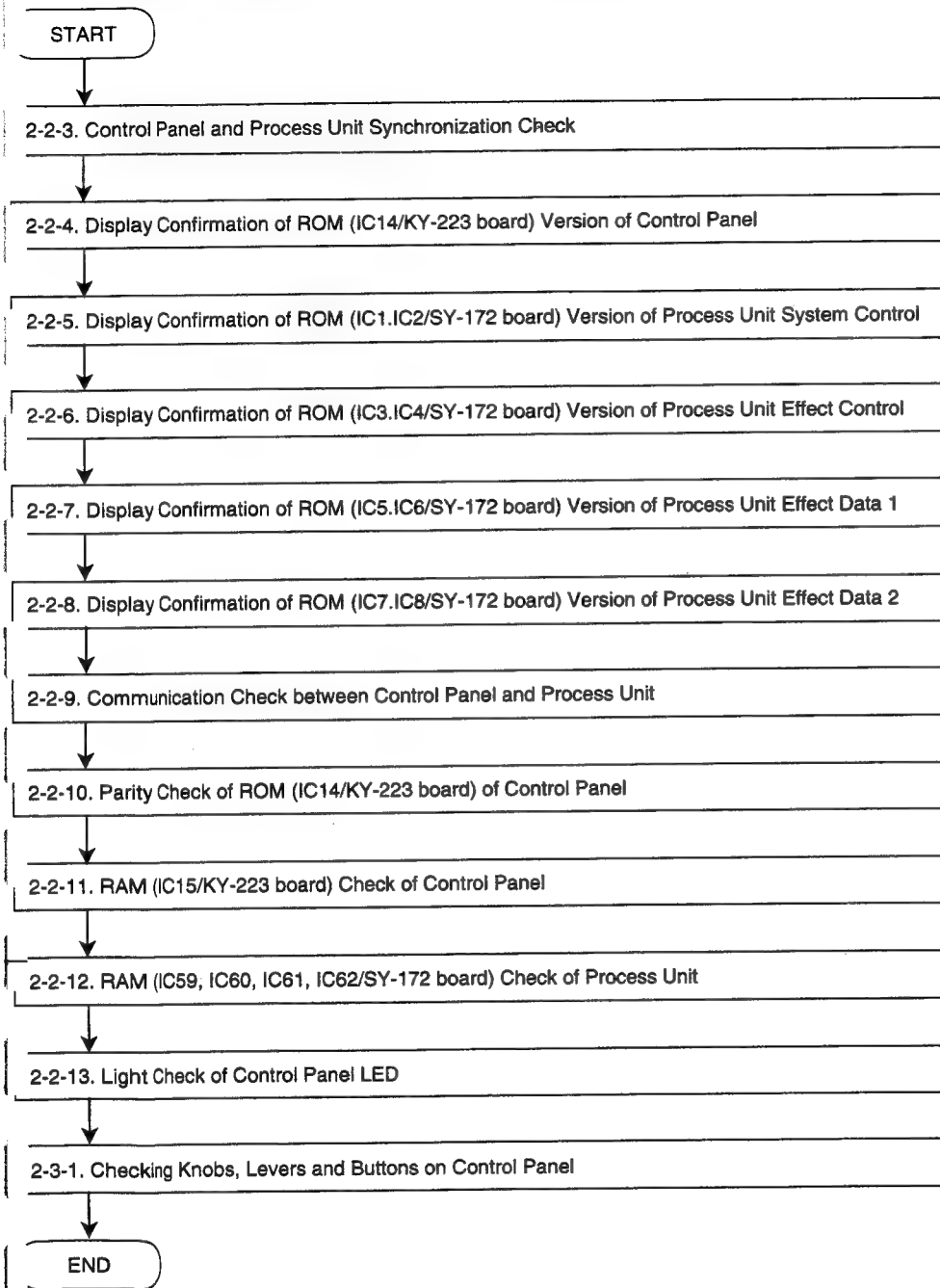
Test point: PGM OUT (COMPOSITE)





## SECTION 2 DIAGNOSTIC

### 2-1. FLOW CHART

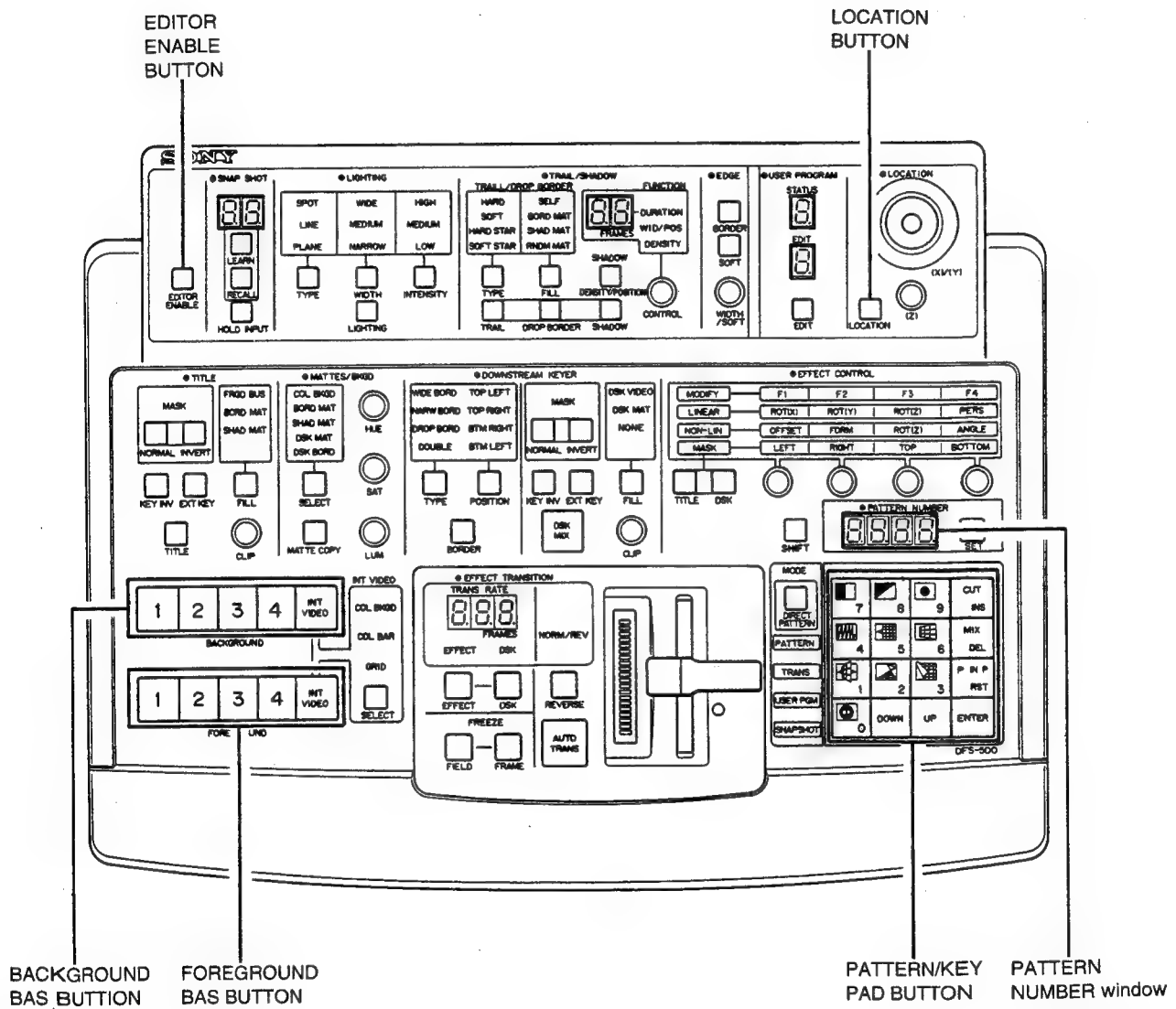




## 2-2. CHECK MODE

If any error occurs at power on or during normal operation, the error number is displayed in the PATTERN NUMBER window.

Buttons and displays that are referred in the following check procedures are labelled as shown below.





## 2-2-1. Countermeasures for Error Messages

PATTERN NUMBER window	Operation	Cause of error	Countermeasure
Er01	During normal operation	The vertical sync signal is not being sent from main unit to the control panel. (The control panel works while synchronizing to the vertical sync signal that is supplied from main unit.)	Possible fault in the SY-172 board, the DA-63 board or the cable.
Er02	① At power on ② During normal operation	Fault in communications between the main unit and the control panel.	Possible fault in the SY-172 board or the cable.
Er10	① At power on ② During normal operation	Abnormal parity in the control panel ROM (IC14/KY-223 board) of the KY-223 board.	Replace the control panel ROM (IC14) of the KY-223 board.
Er20	① At power on ② During normal operation	Abnormality in the control panel RAM (IC15/KY-223 board) of the KY-223 board.	Replace the control panel RAM (IC15) of the KY-223 board.
Er40	At power on	Abnormality in the RAMs (IC59,60,61,62) of the main unit (SY-172 board).	Replace the RAMs (IC59,60,61,62) of the main unit (SY-172 board).

OTE: If two or more errors occur at the same time, the sum of the various error numbers is displayed.

## 2-2. Backup Memory Warnings

Backup memory data is checked at power on. If abnormality is found, the memory is initialized automatically. At the same time, the warning and the pattern number are displayed alternatively in the PATTERN NUMBER window. Press the ENTER button of the Key Pad block to clear the warning and return to the normal operation condition.

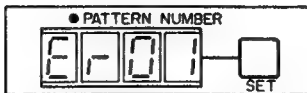
PATTERN NUMBER window	Meaning
bu01	The memory of the user program effect is faulty. It is initialized automatically.
bu02	The snap shot memory is faulty. It is initialized automatically.
bu04	The memory of the direct pattern assignment is faulty. It is initialized automatically.
bu10	The memory to recover (resume function) the default in power OFF is faulty. It is initialized automatically.

NOTE: If two or more abnormality occur at the same time, the sum of the various warning numbers is displayed.



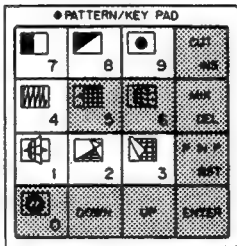
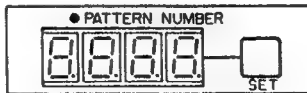
### 2-2-3. Control Panel and Process Unit Synchronization Check

The control panel works while synchronizing to the vertical sync signal that is supplied from the main unit.  
The process unit checks all the time during operation that the sync signal is being sent correctly to the control panel.

Execution method during operation	Confirmation item
It is checked all the time during operation.	<ul style="list-style-type: none"> <li>PATTERN NUMBER window</li> </ul>  <ul style="list-style-type: none"> <li>If there is any abnormality, error is displayed.</li> </ul>
<b>Cause</b> <ul style="list-style-type: none"> <li>Vertical sync signal is not sent from the main unit to the control panel correctly. (The control panel works while synchronizing to the vertical sync signal that is supplied from main unit.)</li> </ul>	
<b>Operator action</b> <ul style="list-style-type: none"> <li>Possible fault in the SY-172 board, the DA-63 board or the cable.</li> </ul>	

### 2-2-4. Display Confirmation of ROM (IC14/KY-223 board) Version of Control Panel

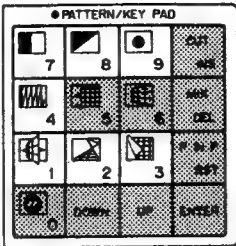
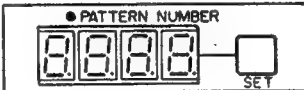
ROM (IC14) version of the KY-223 board is displayed.  
It is confirmed whenever power is turned on.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 1 and the FOREGROUND 1, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number X.XX is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>



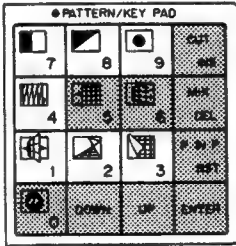
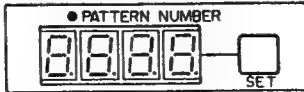
## 2-2-5. Display Confirmation of ROM (IC1, IC2/SY-172 board) Version of Process Unit System Control

ROM (IC1, IC2) version of the SY-172 board is displayed.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 1 and the FOREGROUND 2, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number X.XX is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>

## 2-2-6. Display Confirmation of ROM (IC3, IC4/SY-172 board) Version of Process Unit Effect Control

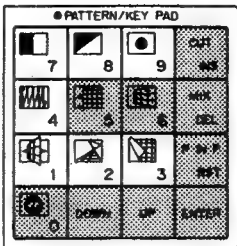
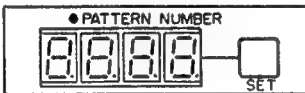
ROM (IC3, IC4) version of the SY-172 board is displayed.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 1 and the FOREGROUND 3, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number X.XX is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>



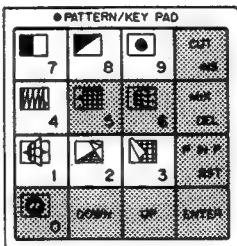
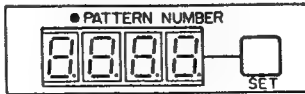
## 2-2-7. Display Confirmation of ROM (IC5.IC6/SY-172 board) Version of Process Unit Effect Data 1

ROM (IC5.IC6) version of the SY-172 board is displayed.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 1 and the FOREGROUND 4, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number X.XX is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>

## 2-2-8. Display Confirmation of ROM (IC7.IC8/SY-172 board) Version of Process Unit Effect Data 2

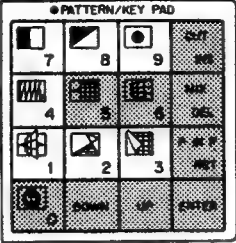

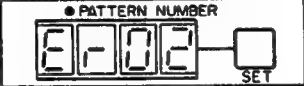
ROM (IC7.IC8) version of the SY-172 board is displayed.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 1 and the INT VIDEO of the FOREGROUND, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number X.XX is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>



## 2-2-9. Communication Check between Control Panel and Process Unit

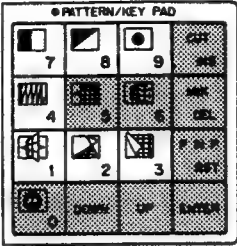


Communication between the control panel and process unit is checked.  
 In this check, the communication check command is sent from the control panel to the process unit.  
 Then, it is checked if a response command is returned within the specified time.  
 It is checked whenever power is turned on.

Execution method during operation	Confirmation item
<p>While pressing the BACKGROUND 2 and the FOREGROUND 3, press the LOCATION.</p>	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number STATUS is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <p>→ Normal</p>  <p>→ Abnormal</p> <ul style="list-style-type: none"> <li>Press the ENTER on the KEY PAD button to restore normal operation.</li> </ul>
<p><b>Cause</b></p> <ul style="list-style-type: none"> <li>Communication between the control panel and the process unit is not established correctly.</li> </ul>	
<p><b>Operator action</b></p> <ul style="list-style-type: none"> <li>Possible fault in the DA-63 board, the cable, etc.</li> </ul>	



## 2-2-10. Parity Check of ROM (IC14/KY-223 board) of Control Panel

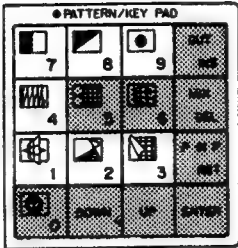
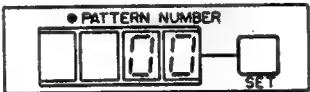

Parity of KY-223 board ROM (IC14) is checked.  
It is checked whenever power is turned on.

Execution method during operation	Confirmation item
<p>While pressing the BACKGROUND 3 and the FOREGROUND 1, press the LOCATION.</p>	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number STATUS is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <p>→ Normal</p>  <p>→ Abnormal</p> <ul style="list-style-type: none"> <li>Press the ENTER on KEY PAD button to restore normal operation.</li> </ul>
<p><b>Cause</b></p> <ul style="list-style-type: none"> <li>Parity of KY-223 board ROM (IC14) is abnormal.</li> </ul>	
<p><b>Operator action</b></p> <ul style="list-style-type: none"> <li>Replace the KY-223 board ROM (IC14).</li> </ul>	




## 2-2-11. RAM (IC15/KY-223 board) Check of Control Panel

RAM (IC15) on the KY-223 board is checked.  
is checked whenever power is turned on.

Execution method during operation	Confirmation item
While pressing the BACKGROUND 3 and the FOREGROUND 2, press the LOCATION.	<ul style="list-style-type: none"> <li>KEY PAD buttons light in the shape of letter C. (buttons 1-4 and 7-9)</li> </ul>  <ul style="list-style-type: none"> <li>Check that the version number STATUS is displayed on the PATTERN NUMBER window.</li> <li>At this time, all other LEDs light off.</li> </ul>  <p>→ Normal</p>  <p>→ Abnormal</p> <ul style="list-style-type: none"> <li>Press the ENTER on KEY PAD button to restore normal operation.</li> </ul>
<b>Cause</b> <ul style="list-style-type: none"> <li>Parity of KY-223 board RAM (IC15) is abnormal.</li> </ul>	
<b>Operator action</b> <ul style="list-style-type: none"> <li>Replace the KY-223 board RAM (IC15).</li> </ul>	

## 2-2-12. RAM (IC59, IC60, IC61, IC62/SY-172 board) Check of Process Unit

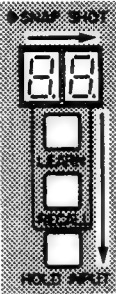
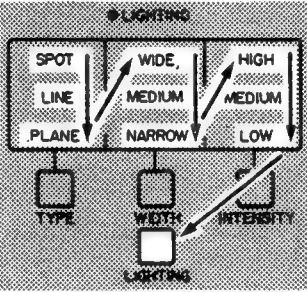
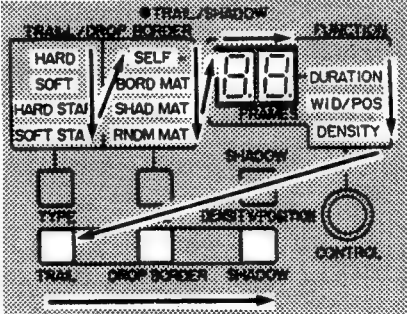
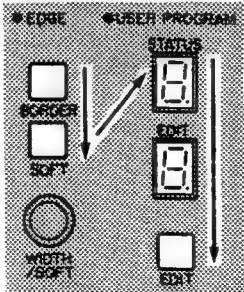
RAMs (IC59, IC60, IC61, IC62/SY-172 board) on the process unit is checked.  
is checked whenever power is turned on.

Execution method during operation	Confirmation item
	<ul style="list-style-type: none"> <li>PATTERN NUMBER window</li> </ul>  <ul style="list-style-type: none"> <li>If there is any abnormality, error is displayed as shown above.</li> </ul>
<b>Cause</b> <ul style="list-style-type: none"> <li>RAMs (IC59, IC60, IC61, IC62/SY-172 board) on the process unit is abnormal.</li> </ul>	
<b>Operator action</b> <ul style="list-style-type: none"> <li>Replace the RAMs (IC59, IC60, IC61, IC62) on the process unit SY-172 board.</li> </ul>	



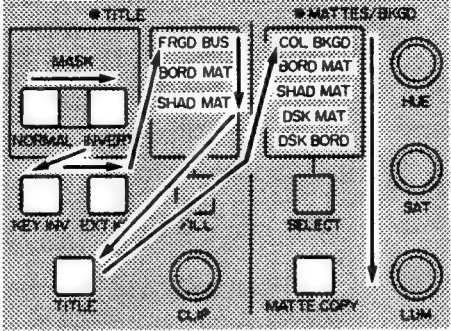
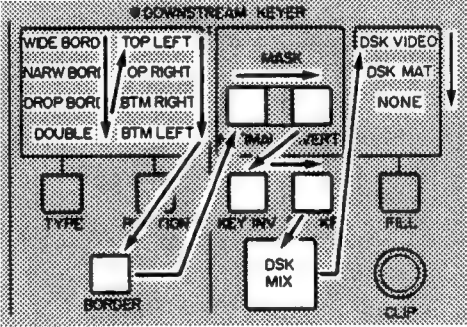
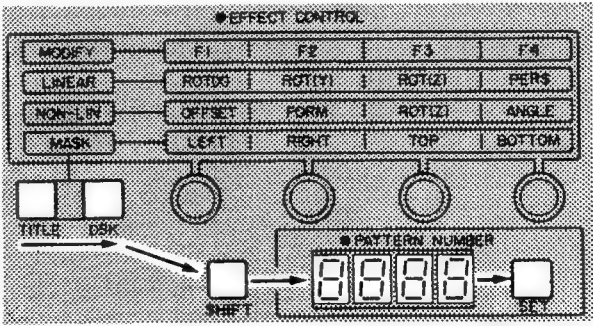
## 2-2-13. Light Check of Control Panel LED

Light all the LEDs on the control panel one by one sequentially.

Execution method during operation	Confirmation item
<p>While pressing the BACKGROUND 2 and the FOREGROUND 1, press the LOCATION.</p> <p>NOTE: (1) The LEDs lighting speed can be changed by F4 control on the EFFECT CONTROL block. Normal speed is 100%. The speed ranges from 50% to 200%.</p> <p>(2) When a button of a block is pressed, lighting jumps to the top of respective block.</p>	<p>LEDs light in order from top to bottom, left to right.</p> <p>① EDITOR ENABLE button (EDITOR ENABLE button lights.)</p> <p>② SNAP SHOT block</p>  <ul style="list-style-type: none"> <li>Counter block test Left hand digit counts up from 0-9, then right hand digit counts up from 0-9.</li> </ul> <p>③ LIGHTING block</p>  <p>④ TRIAL/SHADOW block</p>  <ul style="list-style-type: none"> <li>Counter block test Left hand digit counts up from 0-9, then right hand digit counts up from 0-9.</li> </ul> <p>⑤ EDGE block, USER PROGRAM block</p>  <ul style="list-style-type: none"> <li>Counter block test STATUS digit counts up from 0-9, then EDIT digit counts up from 0-9.</li> </ul>





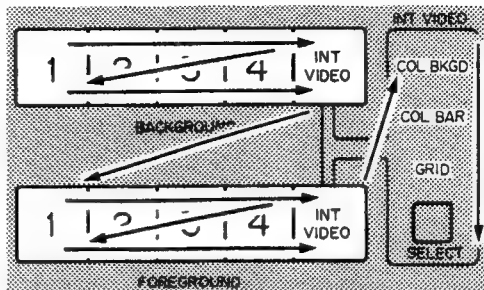
Execution method during operation	Confirmation item
	<div>⑥ LOCATION block (LOCATION button lights.)</div> <div>⑦ TITLE block, MATTES/BKGD block</div> <div></div> <div>⑧ DOWNSTREAM KEYER block</div> <div></div> <div>⑨ EFFECT CONTROL block, SHIFT button, PATTERN NUMBER block</div> <div></div> <div><div>• Counter block test</div><div>Left most digit of the four counters counts up from 0-9, then the next right hand digit counts up from 0-9 in this order.</div></div>



Execution method during operation

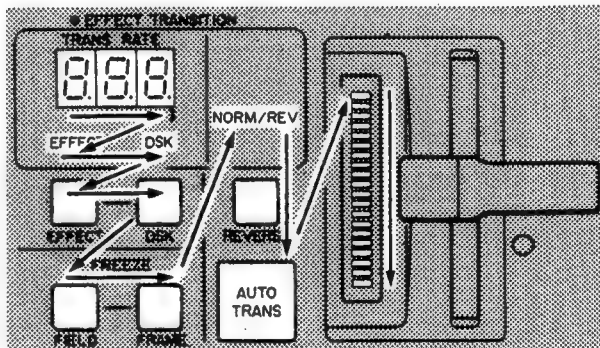
Confirmation item

⑩ Primary Crosspoint Bus block



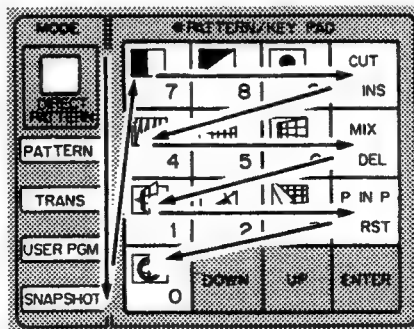
- BACKGROUND button test  
LEDs light from left to right first in red then in orange.
- FOREGROUND button test  
LEDs light from left to right first in red then in orange.

⑪ EFFECT TRANSITION block



- Counter block test  
Left most digit of the three counters counts up from 0-9, then the next right hand digit counts up from 0-9 in this order.

⑫ PATTERN/KEY PAD block



Confirm that the LEDs light in the order as shown above.  
(buttons 0-9, CUT INS, MIX DEL, P IN P RST and ENTER)

- Press the ENTER on the KEY PAD button to restore normal operation.

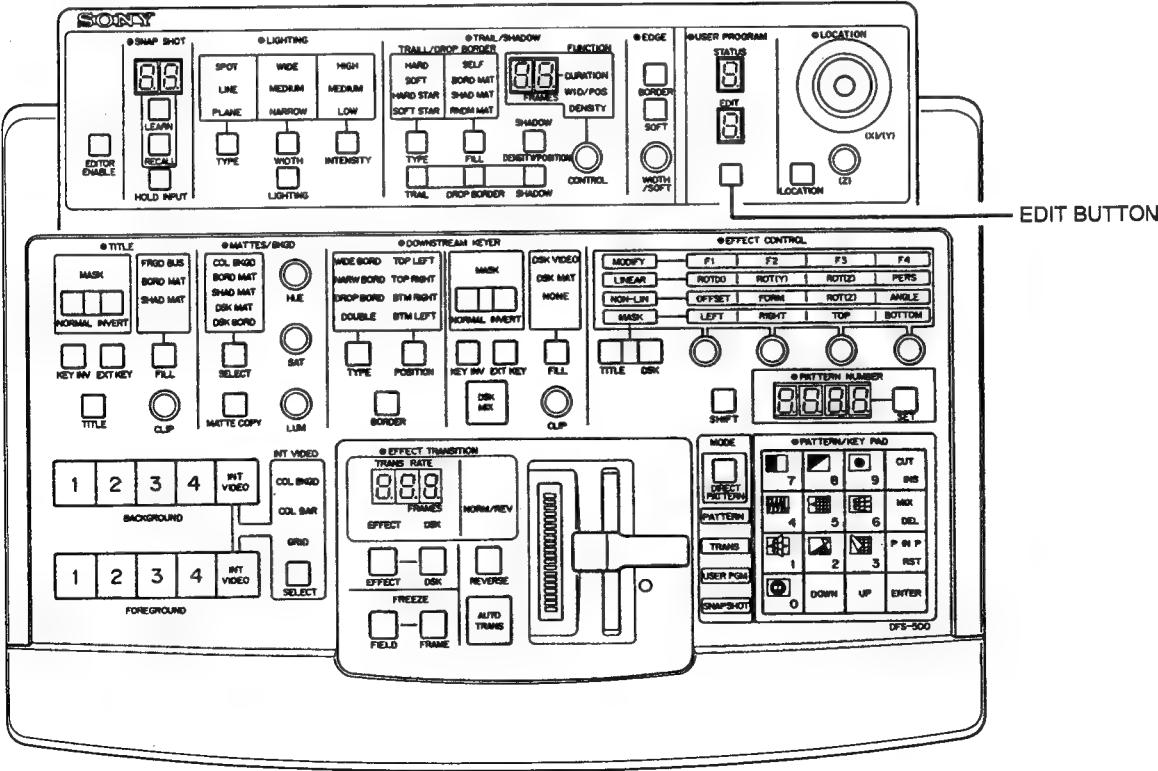


2-3. CHECKING KNOBS, LEVERS AND BUTTONS ON CONTROL PANEL



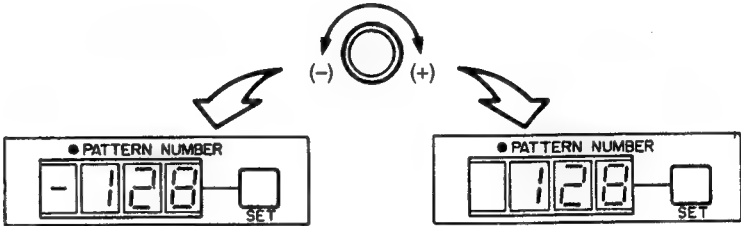
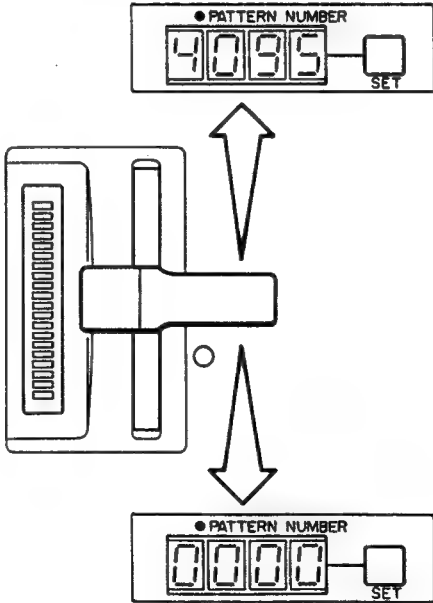
nobs and corresponding buttons

Knob		Corresponding button	
EFFECT CONTROL block	F1	KEY PAD block	Button 7
	F2	KEY PAD block	Button 8
	F3	KEY PAD block	Button 9
	F4	KEY PAD block	CUT INS
LOCATION block	Z	LOCATION block	LOCATION
		FOREGROUND	INT VIDEO
EDGE block	WIDTH/ SOFT	EDGE block	Either EDGE block button
		BACKGROUND	Button 2
TITLE block	CLIP	TITLE block	Either TITLE block button
		BACKGROUND	Button 4
MATTES/BKGD block	HUE	BACKGROUND	Button 1
	SAT	BACKGROUND	Button 2
	LUM	BACKGROUND	Button 3
DOWNSTREAM KEYER	CLIP	DOWNSTREAM KEYER	Either DOWNSTREAM KEYER block button
TRAIL/SHADOW	CONTROL	TRAIL/SHADOW	Any TRAIL/SHADOW block button
		BACKGROUND	Button 1



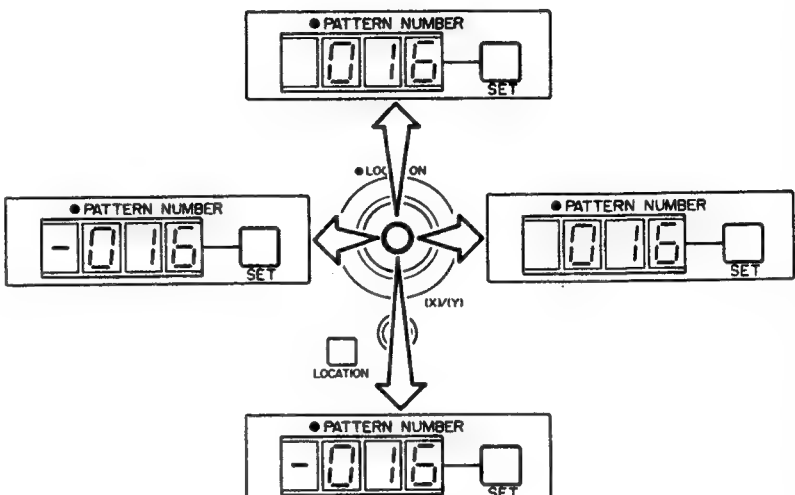
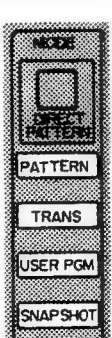


## 2-3-1. Checking Knobs, Levers and Buttons on Control Panel

Execution method during operation	Confirmation item
<p><b>STEP-1</b> While pressing the BACKGROUND 2 and the FOREGROUND 2, press the LOCATION. (NOTE: At this time, warning tone sounds). Step 2, 3, 4 and 5 can be checked individually.</p>	
<p><b>STEP-2 Knob Check</b> Referring to the table showing knobs and corresponding buttons, turn the knob while pressing the corresponding button.</p>	<ul style="list-style-type: none"> <li>• Turn the knob and read the values shown in the PATTERN NUMBER window.</li> </ul>  <ul style="list-style-type: none"> <li>• The values range between -128 (when the knob is fully counterclockwise) and +128 (when the knob is fully clockwise). The values are only displayed while the corresponding button is being pressed.</li> <li>• Press the ENTER on KEY PAD button to restore normal operation.</li> </ul>
<p><b>STEP-3 FADER lever Check</b> Move the FADER lever from an end to the other end. While pressing any button of EFFECT TRANSITION block, move the FADER lever.</p>	<ul style="list-style-type: none"> <li>• Move the FADER lever and read the values shown in the PATTERN NUMBER window.</li> </ul>  <ul style="list-style-type: none"> <li>• Values range from 0 (the bottom most end) to 4095 (the top most end)</li> <li>• Press the ENTER on KEY PAD button to restore normal operation.</li> </ul>





Execution method during operation	Confirmation item
<p><b>STEP-4 LOCATION (X)/(Y) lever Check</b> X (left/right) direction: Move the LOCATION (X)&amp;(Y) lever.</p> <p>Y (up/down) direction: While pressing EDIT of USER PROGRAM or FOREGROUND 4, move the LOCATION (X)&amp;(Y) lever.</p>	<ul style="list-style-type: none"><li>• Move the LOCATION (X)&amp;(Y) lever and read the values shown in the PATTERN NUMBER window.</li></ul>  <ul style="list-style-type: none"><li>• Moving the lever up or to the right increases the absolute value, moving it down or to the left decreases this value. The range on each axis is 0 to 16.</li><li>• X (left/right) direction is checked without pressing button.</li><li>• Y (up/down) direction is checked while the assigned button is pressed.</li><li>• Press the ENTER on KEY PAD button to restore normal operation.</li></ul>
<p><b>STEP-5 Button Check</b> Press all the buttons one by one.</p>	<ul style="list-style-type: none"><li>• Check that the following MODE indicators on the PATTERN/KEY PAD block light all at the same time.</li><li>• At this time, the buttons of self-illuminating type light their LEDs and the other buttons light their nearest LEDs.</li></ul>  <ul style="list-style-type: none"><li>• In this check, if two or more buttons are pressed at the same time, a warning sounds. If the warning sounds when only one button is pressed, suspect a fault like a short-circuit.</li><li>• Press the ENTER on KEY PAD button to restore normal operation. (NOTE: Check the ENTER on KEY PAD button last.)</li></ul>



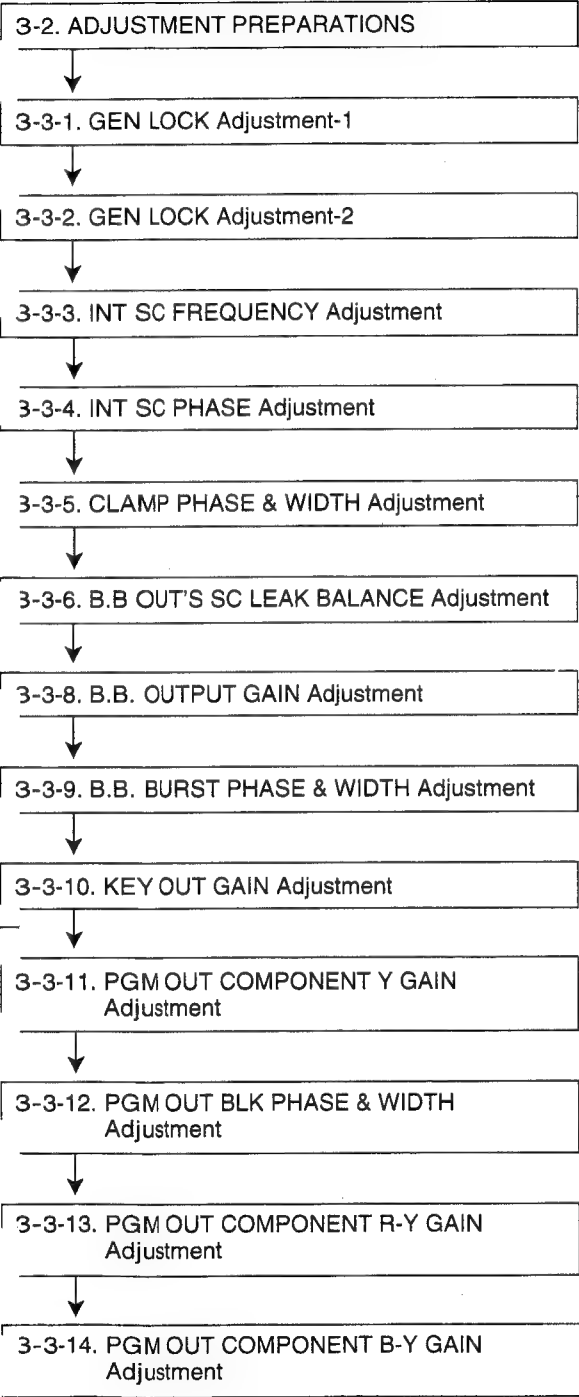




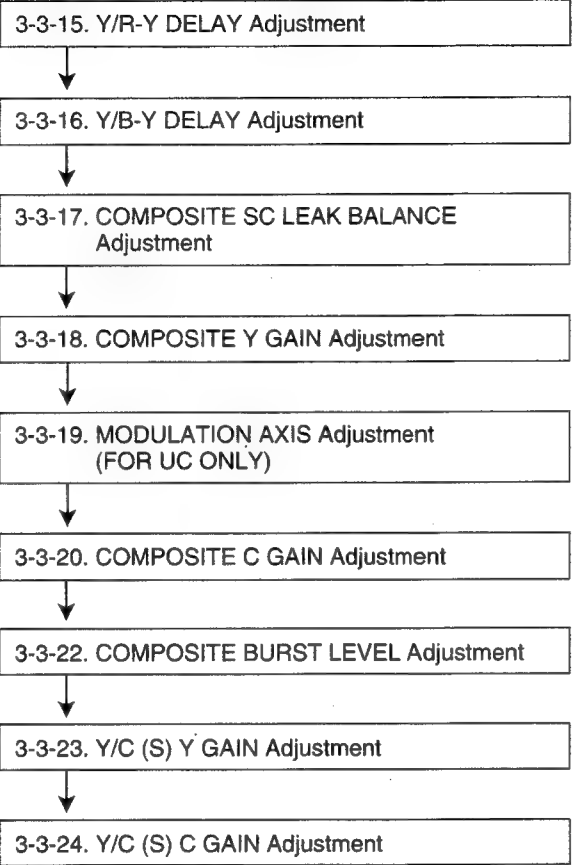
SECTION 3  
ELECTRICAL ALIGNMENT

3-1. ADJUSTMENT SEQUENCE

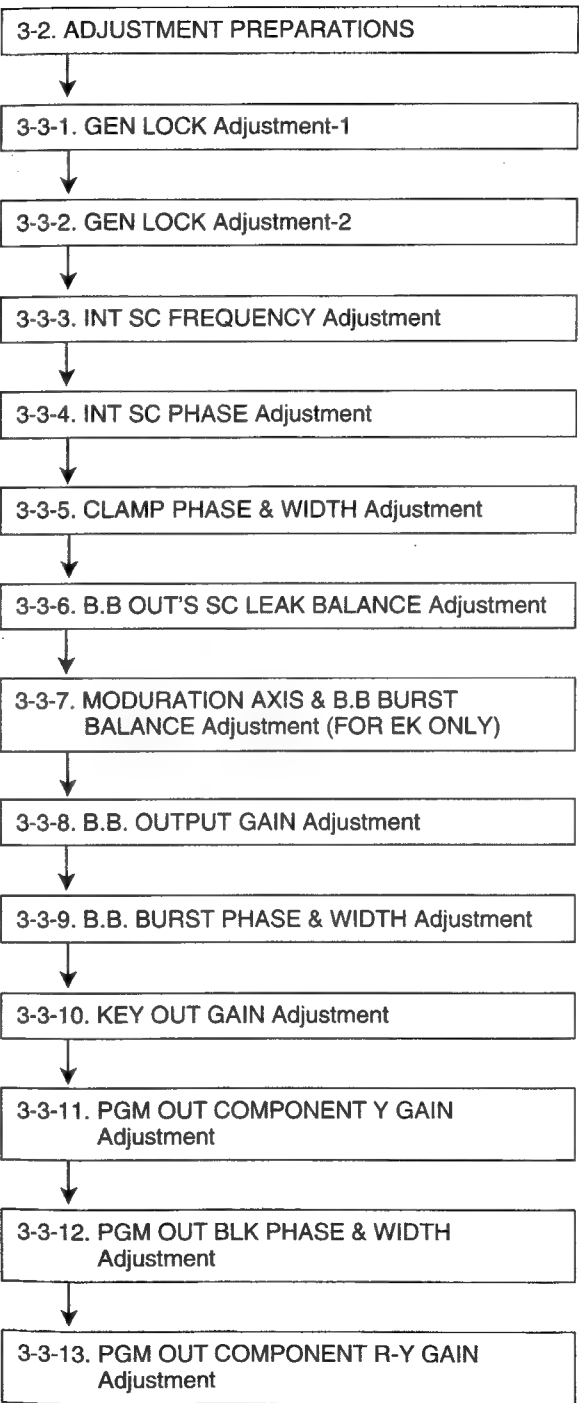
A-63 Board Adjustment (FOR UC)



A

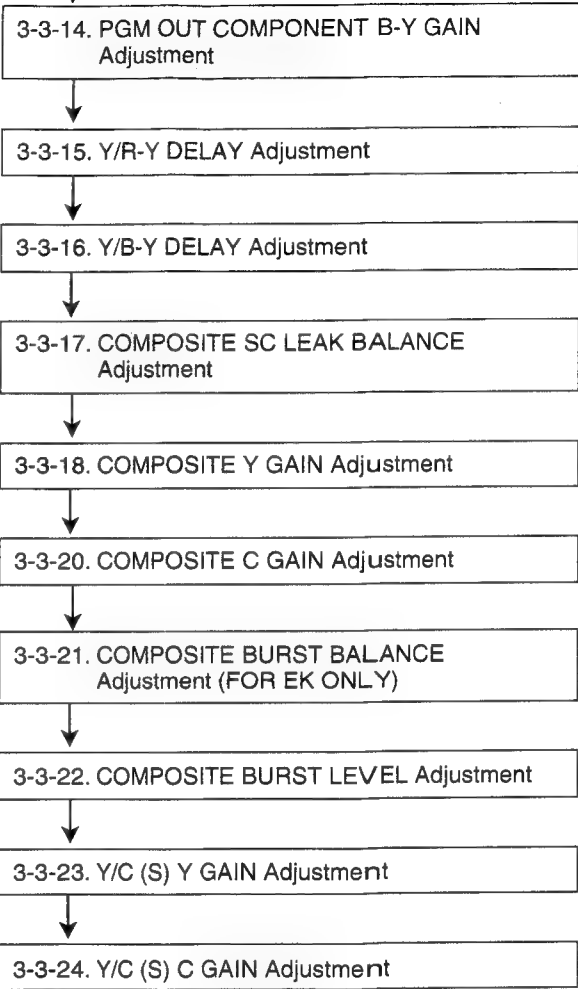


DA-63 Board Adjustment (FOR EK)



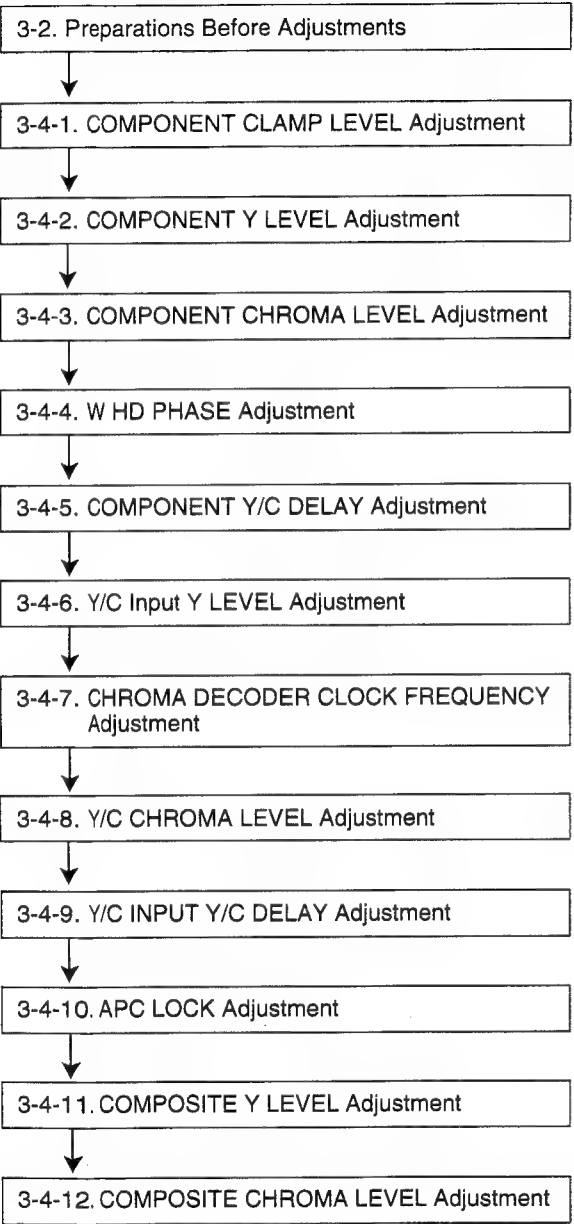
A

A





AD-76 Board Adjustment



3-2. ADJUSTMENT PREPARATIONS

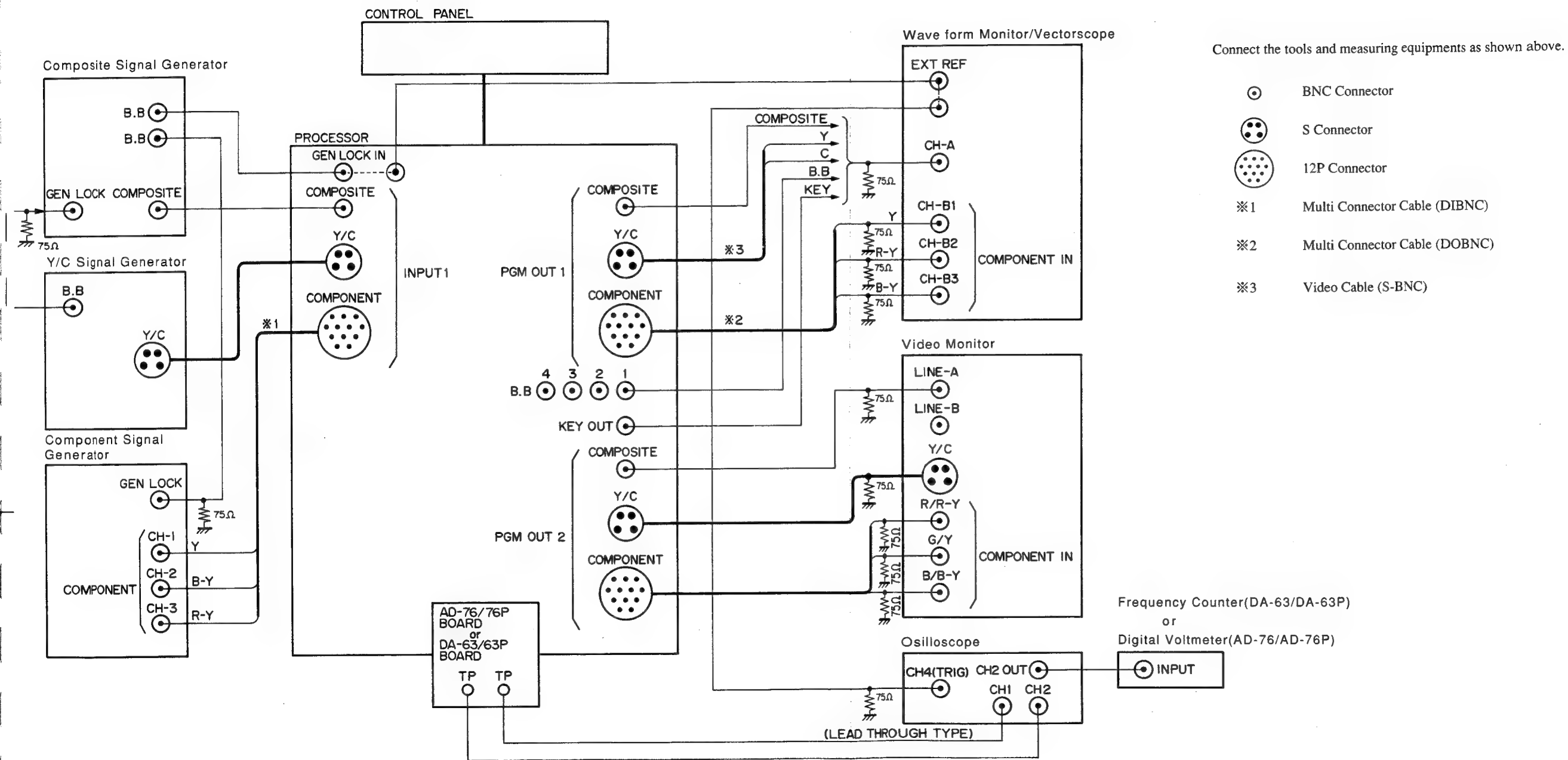
3-2-1. Tools/Measuring Equipments

- 1. Composite Signal Generator  
Equivalent: 1410(NTSC)/Tektronix  
1411(PAL)/Tektronix
- 2. Component Signal Generator  
Equivalent: TSG300/Tektronix
- 3. Y/C Signal Generator  
Equivalent: TSG130(NTSC)/Tektronix  
TSG131(PAL)/Tektronix
- 4. Oscilloscope  
Equivalent: 2445/Tektronix
- 5. Waveform Monitor and Vectorscope  
Equivalent: 1780(NTSC)/Tektronix  
1781(PAL)/Tektronix
- 6. Video Monitor  
Equivalent: PVM1444Q/Sony
- 7. Frequency Counter  
Equivalent: 5315/Hewlett Packard
- 8. Digital Voltmeter  
Equivalent: 3435A/Hewlett Packard
- 9. Video Cable (S-BNC)  
Sony Parts No.: J-6381-380-A
- 10. Multi-connector Cable (DIBNC)  
Sony Part No.: J-6031-820-A
- 11. Multi-connector Cable (DOBNC)  
Sony Part No.: J-6031-830-A
- 12. Extension Board (EX-326)  
Sony Part No.: J-6186-940-A

- Switch Settings
- SY-172 board  
Editing equipment selection switch  
S1 ..... BVE-900  
Set Up ON/OFF switch  
S3-2 ..... { For UC: ON  
                  For EK:OFF
  - DA-63 board  
S1: OFF  
S2: 0°  
S3: 3  
S101: 5  
S102: R/G/B  
S103: 6
- Volume Settings
- DA-63 board  
RV11 : Mechanical center  
RV515: Mechanical center  
RV526: Middle of left fully and Mechanical center



3-2-2. Connection

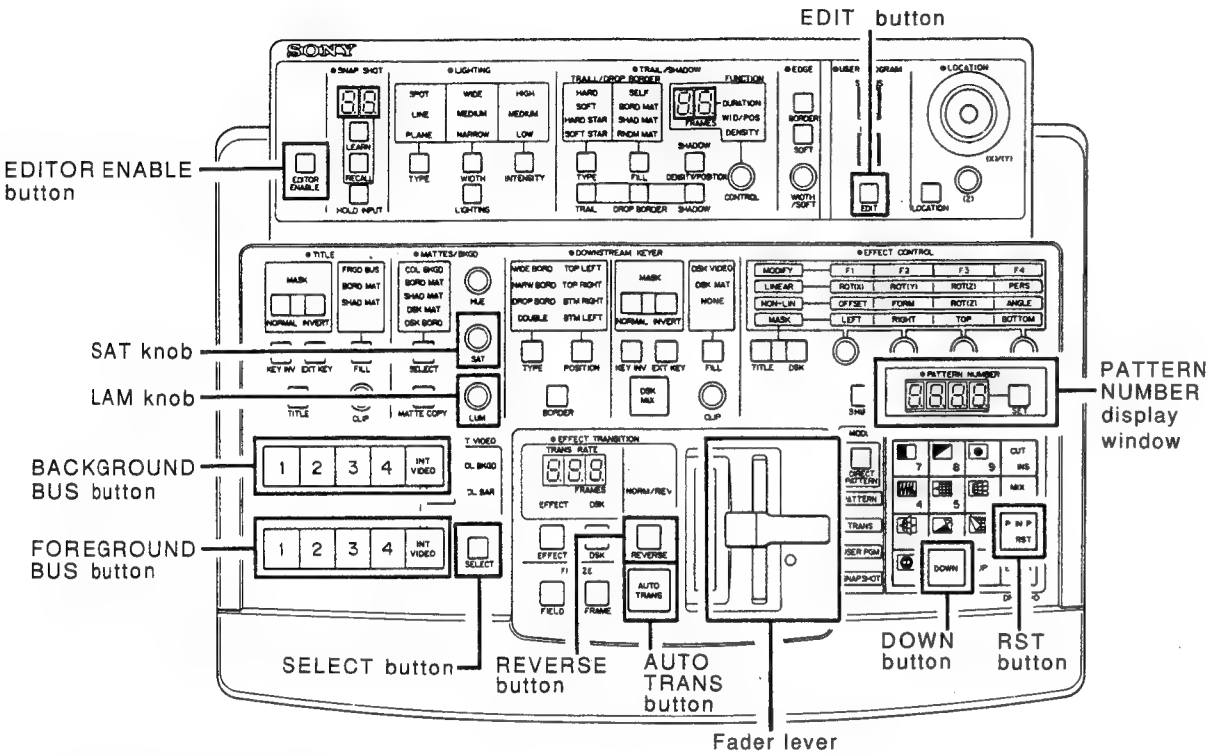




3-2-3. Built-in Color Bars

Selecting the built-in color bars

- The buttons, knobs and displays used in this manual are shown in the figure below.



Selecting the built-in color bars

STEP-1

Initialize the control panel setting

- If the EDIT button of the USER PROGRAM section is lit, press it to turn it off.
- While pressing the RST and DOWN buttons of the KEY PAD section, press the EDITOR ENABLE button.  
The buzzer will sound, and each setting will be initialized-returning them to factory settings.

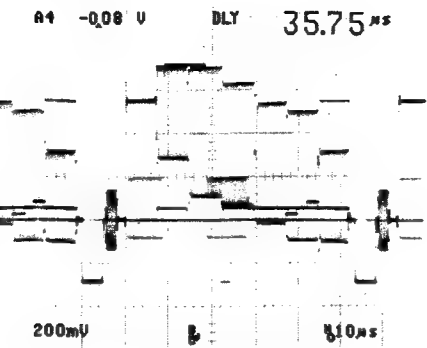
STEP-2

Output the built-in color bars to PGM OUT

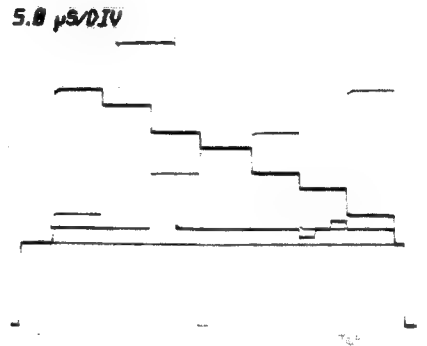
- Select the COL BAR
  - Select the INT VIDEO button with both the BACKGROUND bus and FOREGROUND bus.
  - Push the FADER LEVER to the top or bottom. The INT VIDEO button of BACKGROUND bus will light up red and that of the FOREGROUND bus will light up orange.
  - Press the INT VIDEO SELECT button and select COL BAR.
- Select COL BKGD (100% WHITE)
  - Select the INT VIDEO button with both the BACKGROUND bus and FOREGROUND bus.
  - Push the FADER LEVER to the top or bottom. The INT VIDEO button of BACKGROUND bus will light up red and that of the FOREGROUND bus will light up orange.
  - Press the INT VIDEO SELECT button and select COL BKGD.
  - Rotate the SAT knob of the MATTES/BKGD section to the left until the buzzer sounds.  
Do the same for the LUM knob.

Built-in Color Bars (FOR UC)

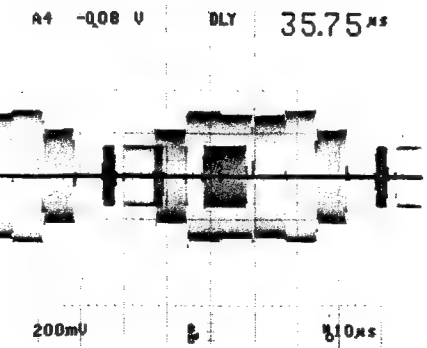
COMPOSITE



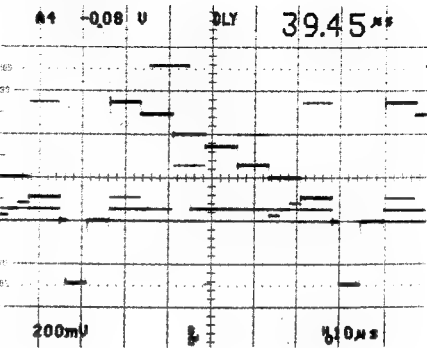
Y/C Y



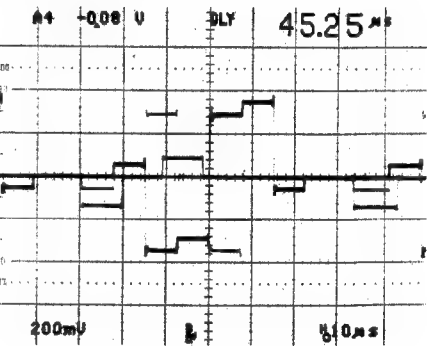
Y/C C



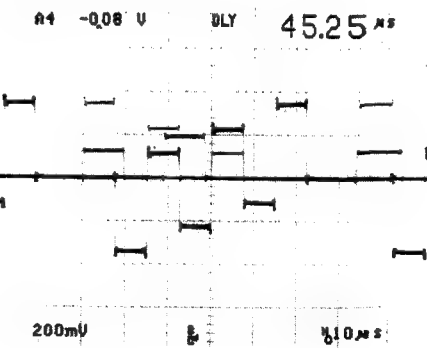
COMPONENT Y



COMPONENT R-Y



COMPONENT B-Y

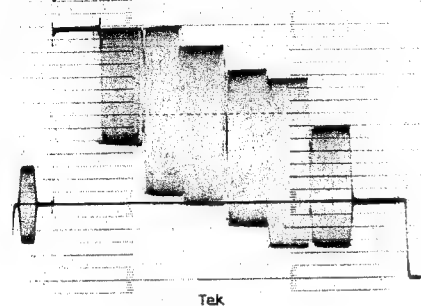




**built-in Color Bars (FOR EK)**

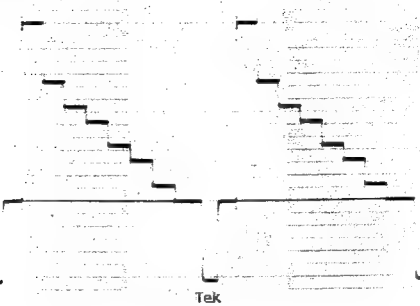
**OMPOSITE**

5.0  $\mu\text{S/DIV}$



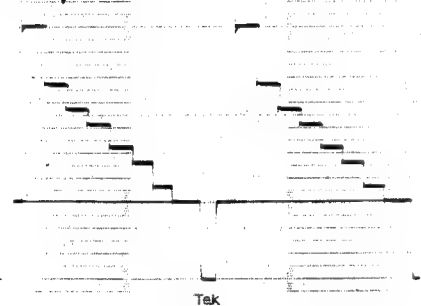
**COMPONENT Y**

10.0  $\mu\text{S/DIV}$



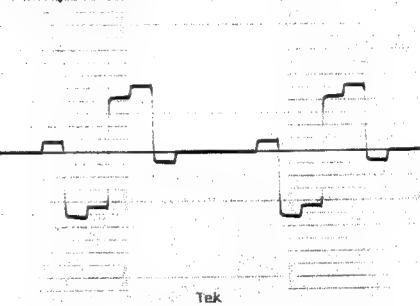
**Y/C Y**

10.0  $\mu\text{S/DIV}$



**COMPONENT R-Y**

10.0  $\mu\text{S/DIV}$

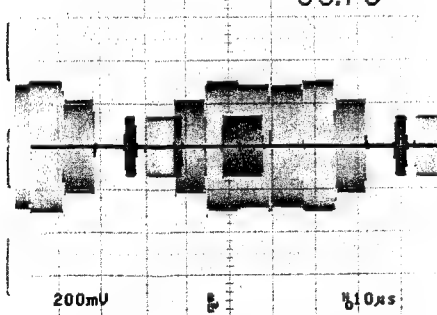


**/C C**

A4 -0.08 V

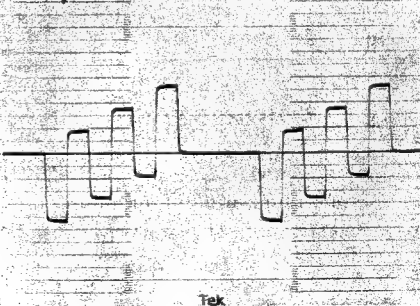
DLY

35.75  $\mu\text{s}$



**COMPONENT B-Y**

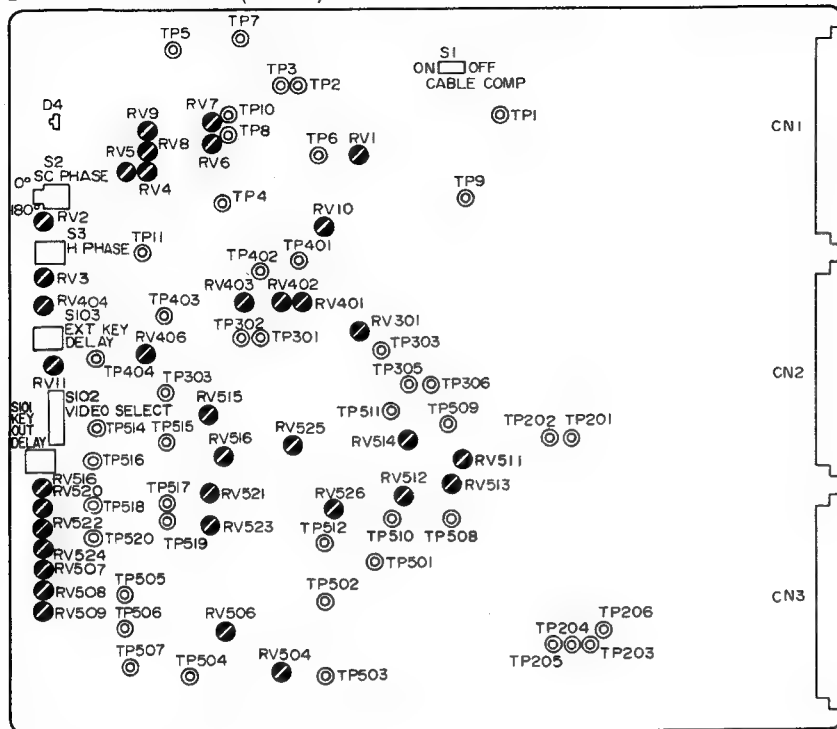
10.0  $\mu\text{S/DIV}$



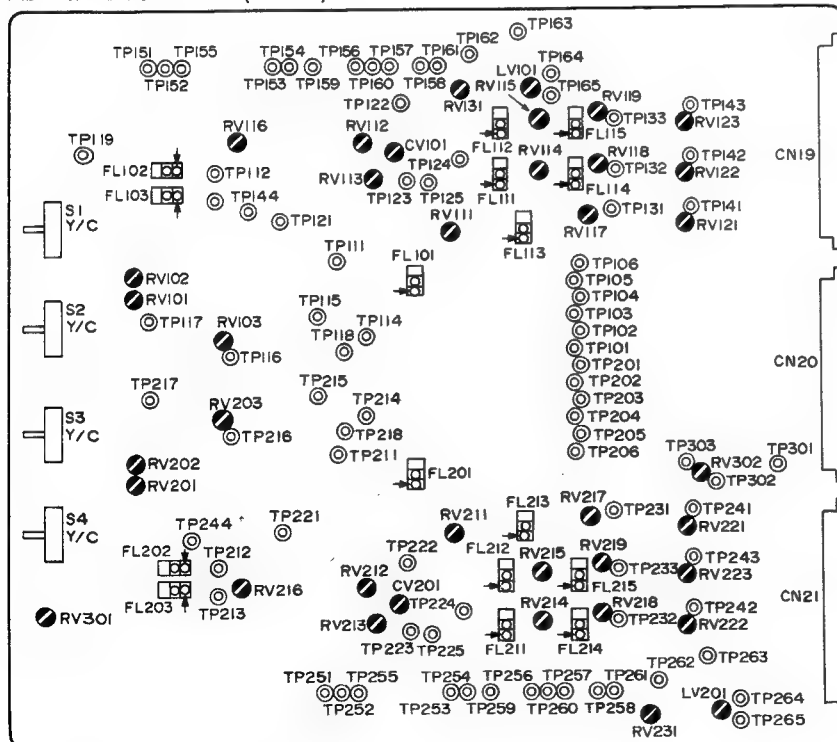


### 3-2-4. Layout of Adjustment Controls

DA-63/DA-63P Board (A Side)

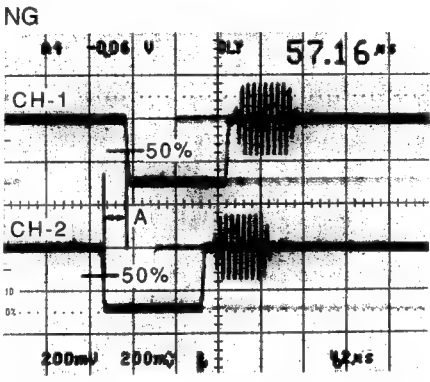
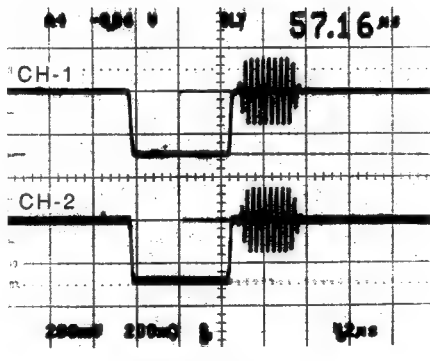


AD-76/AD-76P Board (A Side)





3-3. DA-63 BOARD ADJUSTMENT  
3-3-1. GEN LOCK Adjustment-1

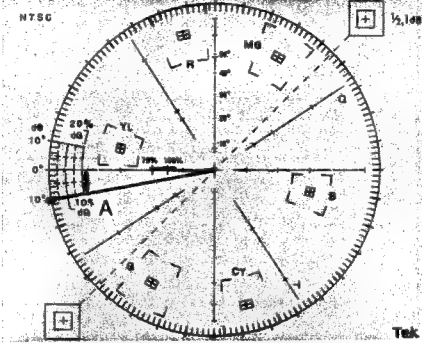
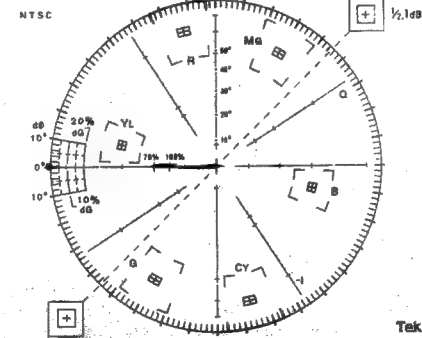
Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON (For UC) S3-2/SY-172 (L10) = OFF (For EK)</li></ul>		
<div>STEP-2</div>	<div><ul style="list-style-type: none"><li>• Check that D4 lights up. CH-1: B.B OUT-1 CH-2: GEN LOCK IN</li></ul></div> <div><div>NG</div><div>OK</div><div><math>A = 0 \pm 50 \text{ nS}</math></div></div> <div><ul style="list-style-type: none"><li>• Adjust <math>\text{RV3}</math> and <math>\text{S3}</math> so that the specification above is satisfied.</li></ul></div>	<div>H PHASE FINE adjustment <math>\text{RV3/DA-63 (E14)}</math></div> <div>H PHASE COARSE <math>\text{S3/DA-63 (D14)}</math></div>

- Oscilloscope  
CH-1: 200 mV/DIV  
2  $\mu$ S/DIV  
CH-2: 200 mV/DIV  
2  $\mu$ S/DIV  
TRIG: B.B (CH-4)



3-3-2. GEN LOCK Adjustment-2

FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON</li></ul>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• Vectorscope</li><li>75%, SET UP</li><li>L.DISP : SCH</li><li>INPUT : CH-A</li><li>FILTER: FLAT</li><li>GAIN : VAR</li><li>REF : EXT</li></ul></div>	<div>PGM OUT 1 (COMPOSITE)</div> <div>NG</div>  <div>OK</div>  <div><math>A = 0 \pm 0.5^\circ</math></div> <ul style="list-style-type: none"><li>• Adjust <math>\odot</math>RV2 and S2 so that the specification above is satisfied.</li></ul>	<div>SC PHASE FINE adjustment</div> <div><math>\odot</math>RV2/DA-63 (D14)</div> <div>SC PHASE COARSE</div> <div>S2/DA-63 (C14)</div>



### 3-3-2. GEN LOCK Adjustment-2)

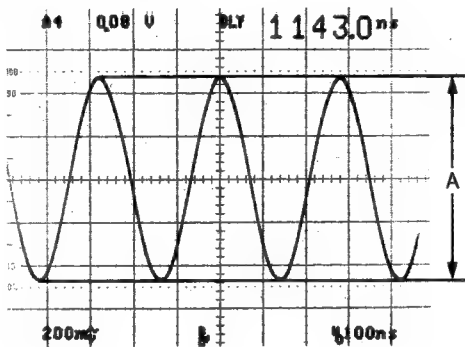
**FOR EK**

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### 3-3-3. INT SC FREQUENCY Adjustment

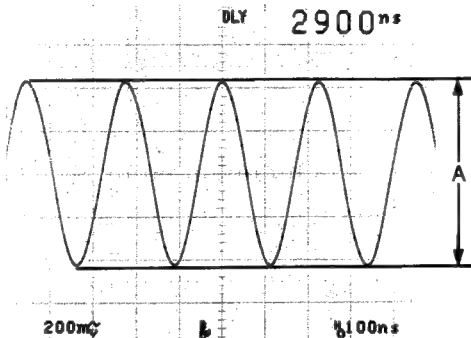
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Disconnect the GEN LOCK IN connector of the rear panel.</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Oscilloscope CH-2: 200 mV/DIV(AC) 100 nS/DIV TRIG: CH2</li> </ul>	<b>CH-2: TP9/DA-63 (C7)</b>  <p style="text-align: center;"><math>A = 1.0 \pm 0.2 \text{ V p-p}</math></p> <ul style="list-style-type: none"> <li>• Check that the specification above is satisfied.</li> </ul>	(Check)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Adjust the oscilloscope as follows. CH2: 200 mV/DIV (AC).</li> <li>• Connect Frequency counter to CH-2 OUT of oscilloscope.</li> </ul>	<p style="text-align: center;">3.579545 MHz <math>\pm</math> 5 Hz</p> <ul style="list-style-type: none"> <li>• Check that D4 (B14) is off.</li> </ul>	<b>SC FREQUENCY adjustment</b> ●RV1/DA-63 (B8)
<b>STEP-4</b> <ul style="list-style-type: none"> <li>• After this adjustment is completed, connect the GEN LOCK IN connector of the rear panel again.</li> </ul>		



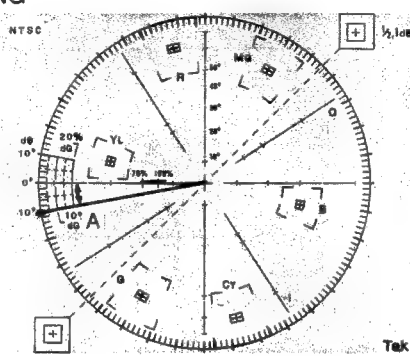
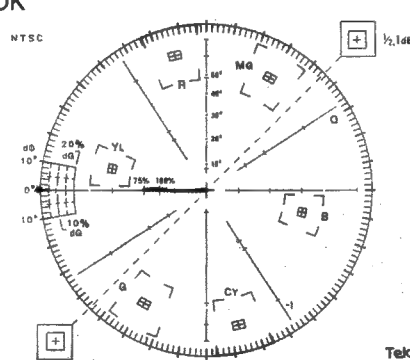
### 3-3-3. INT SC FREQUENCY Adjustment)

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Disconnect the GEN LOCK IN connector of the rear panel.</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Oscilloscope CH-2: 200 mV/DIV(AC) 100 nS/DIV TRIG: CH2</li> </ul>	<b>CH-2: TP9/DA-63 (C7)</b>  <p style="text-align: center;"><math>A = 1.0 \pm 0.2 \text{ V p-p}</math></p> <ul style="list-style-type: none"> <li>• Check that the specification above is satisfied.</li> </ul>	(Check)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Adjust the oscilloscope as follows. CH2: 200 mV/DIV (AC).</li> <li>• Connect Frequency counter to CH-2 OUT of oscilloscope.</li> </ul>	<p style="text-align: center;">4.433619 MHz <math>\pm</math> 5 Hz</p> <ul style="list-style-type: none"> <li>• Check that D4 (B14) is off.</li> </ul>	<b>SC FREQUENCY adjustment</b> ●RV1/DA-63 (B8)
<b>STEP-4</b> <ul style="list-style-type: none"> <li>• After this adjusting is completed, connect the GEN LOCK IN connector of the rear panel again.</li> </ul>		



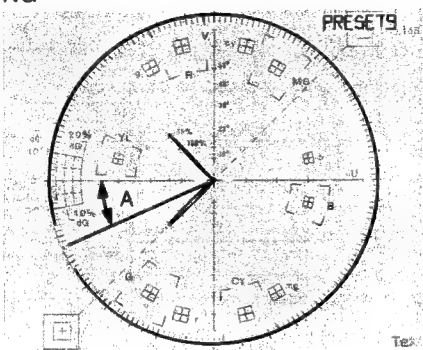
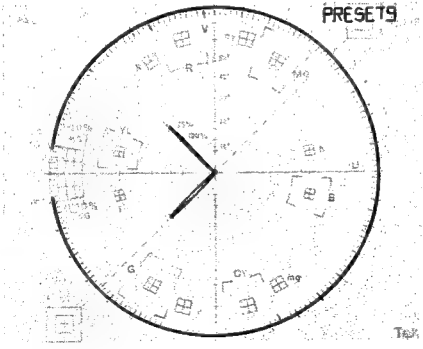
**FOR UC**

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Disconnect the GEN LOCK IN connector of the rear panel.</li> </ul>		
<b>STEP-2</b>  <ul style="list-style-type: none"> <li>• Vectorscope 75%, SET UP L.DISP : SCH INPUT : CH-A FILTER: FLAT GAIN : VAR REF : INT</li> </ul>	<p align="center"><b>PGM OUT 1 (COMPOSITE)</b></p> <p align="center"><b>NG</b></p>  <p align="center"><b>OK</b></p>  <p align="center"><math>A = 0 \pm 0.5^\circ</math></p> <ul style="list-style-type: none"> <li>• Adjust RV10 so that the specification above is satisfied.</li> </ul>	<p align="center"><b>INT SC PHASE adjustment</b></p> <p align="center">●RV10/DA-63 (D9)</p>
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• After this adjustment is completed, connect the GEN LOCK IN connector of the rear panel again.</li> </ul>		



### 3-3-4. INT SC PHASE Adjustment

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Disconnect the GEN LOCK IN connector of the rear panel.</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Vectorscope 75% L.DISP : SCH INPUT : CH-A FILTER: FLAT GAIN : VAR REF : INT</li> </ul>	<b>PGM OUT 1 (COMPOSITE)</b>  <b>NG</b>   <b>OK</b>   $A = 0 \pm 0.5^\circ$ <ul style="list-style-type: none"> <li>• Adjust ⌀RV10 so that the specification above is satisfied.</li> </ul>	<b>INT SC PHASE adjustment</b> ⌀RV10/DA-63 (D9)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• After this adjustment is completed, connect the GEN LOCK IN connector of the rear panel again.</li> </ul>		



3-3-5. CLAMP PHASE & WIDTH Adjustment

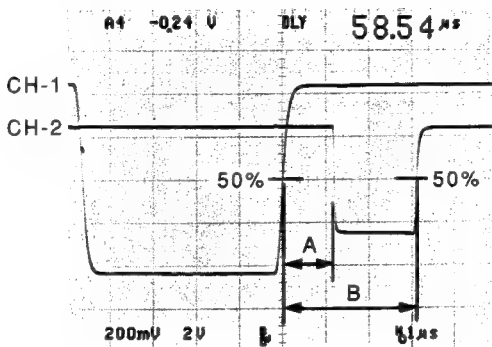
FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>Connection: Section 3-2-2 Connection</li><li>Extension board: Extend the DA-63 board with the EX-326 board.</li><li>Switch setting: S3-2/SY-172 (L10) = ON</li></ul></div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>Oscilloscope</li><li>CH-1: 200 mV/DIV</li><li>1 μS/DIV</li><li>CH-2: 2V/DIV</li><li>1 μS/DIV</li><li>TRIG: B.B (CH4)</li></ul></div>	<div>CH-1: TP305/DA-63 (F8)</div> <div>CH-2: TP11/DA-63 (D12)</div> <div><p>CH-1: 200 mV/DIV</p><p>CH-2: 2V/DIV</p><p>TRIG: B.B (CH4)</p><p>A = 1.2 ± 0.1 μS</p><p>B = 3.1 ± 0.1 μS</p></div>	<div>A: CLAMP PULSE PHASE adjustment</div> <div>RV4/DA-63 (C12)</div> <div>B: CLAMP PULSE WIDTH adjustment</div> <div>RV5/DA-63 (C12)</div>



### 3-3-5. CLAMP PHASE & WIDTH Adjustment

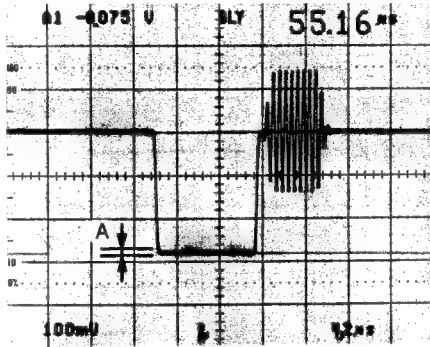
#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>Connection: Section 3-2-2 Connection</li> <li>Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>Switch setting: S3-2/SY-172 (L10) = OFF</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>Oscilloscope</li> <li>CH-1: 200 mV/DIV 1 <math>\mu</math>S/DIV</li> <li>CH-2: 200 mV/DIV 1 <math>\mu</math>S/DIV</li> <li>TRIG: B:B (CH-4)</li> </ul>	CH-1: TP305/DA-63 (F8) CH-2: TP11/DA-63 (D12)  $A = 1.2 \pm 0.1 \mu\text{S}$ $B = 3.1 \pm 0.1 \mu\text{S}$	<b>A: CLAMP PULSE PHASE adjustment</b> ●RV4/DA-63 (C12)  <b>B: CLAMP PULSE WIDTH adjustment</b> ●RV5/DA-63 (C12)

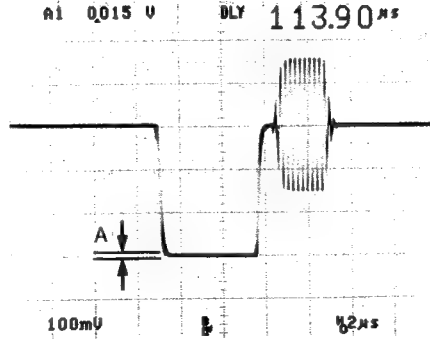


### 3-3-6. B.B OUT'S SC LEAK BALANCE Adjustment

#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>B.B OUT-1</b>  <p>A = Below 20 mV p-p (Adjust to minimum.)</p>	<b>SC LEAK BAL adjustment</b> ⒶRV402/DA-63 (E10)

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection:Section 3-2-2 Connection</li> <li>• Extension board:Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting:S3-2/SY-172 (L10) = OFF</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>B.B OUT-1</b>  <p>A = Below 20 mV p-p (Adjust to minimum.)</p>	<b>SC LEAK BAL adjustment</b> ⒶRV402/DA-63 (E10)

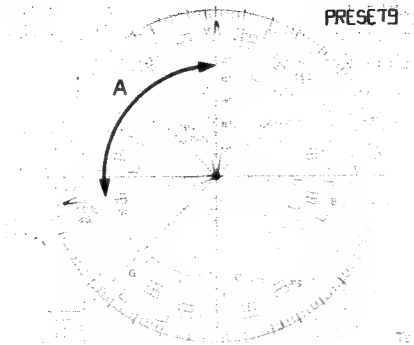
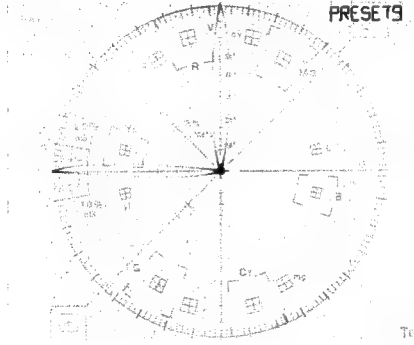


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DFS-500/500P



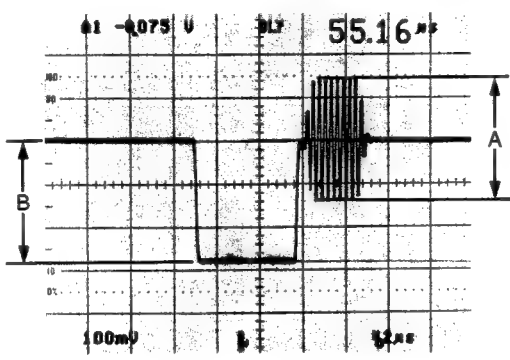
(3-3-7. MODURATION AXIS & B.B BURST BALANCE Adjustment (FOR EK ONLY))

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-3</div> <div><ul style="list-style-type: none"><li>• Vectorscope 75% L.DISP : VECT INPUT : CH-A FILTER: FLAT GAIN : VAR REF : EXT</li></ul></div>	<div>B.B OUT-1</div> <div>NG</div> <div></div> <div>OK</div> <div></div> <div><math>A = 90 \pm 0.5^\circ</math></div> <div><ul style="list-style-type: none"><li>• Adjust ⦿RV401 so that the specification above is satisfied.</li></ul></div>	<div>BURST BALANCE adjustment</div> <div>⦿RV401/DA-63 (E9)</div>

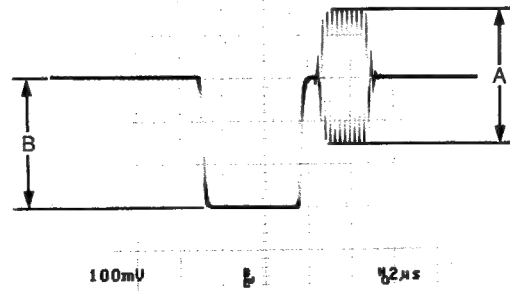


### 3-3-8. B.B OUTPUT GAIN Adjustment

#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>B.B OUT-1</b>  <p style="text-align: center;"> <math>A = 286 \pm 4 \text{ mV p-p}</math>  <math>B = 286 \pm 4 \text{ mV p-p}</math> </p>	<b>A: B.B OUT GAIN adjustment</b> ⒶRV404/DA-63 (E14)  <b>B: SYNC LEVEL (B.B) adjustment</b> ⒶRV406/DA-63 (F12)

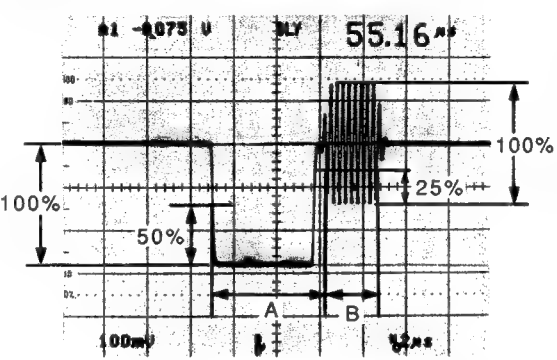
#### OR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>B.B OUT-1</b>  <p style="text-align: center;"> <math>A = 300 \pm 4 \text{ mV p-p}</math>  <math>B = 300 \pm 4 \text{ mV p-p}</math> </p>	<b>A: B.B OUT GAIN adjustment</b> ⒶRV404/DA-63 (E14)  <b>B: SYNC LEVEL (B.B) adjustment</b> ⒶRV406/DA-63 (F12)



### 3-3-9. B.B BURST PHASE & WIDTH Adjustment

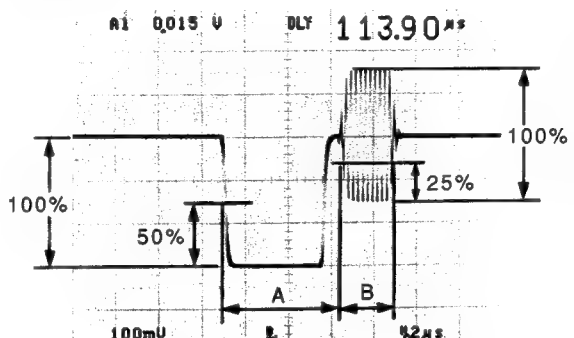
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH4)</li> </ul>	<b>B.B OUT-1</b>  <p style="text-align: center;"> <math>A = 5.3 \pm 0.1 \mu\text{s}</math>  <math>B = 2.5 \pm 0.1 \mu\text{s}</math> </p> <ul style="list-style-type: none"> <li>• Adjust <math>\text{RV8}</math> and <math>\text{RV9}</math> so that the specifications above are satisfied.</li> <li>• The 50% and 25% indicate the 50% of the SYNC level and the 25% of the BURST level.</li> </ul>	<p><b>A: BURST PHASE adjustment</b>  <math>\text{RV9/DA-63 (B12)}</math></p> <p><b>B: BURST WIDTH adjustment</b>  <math>\text{RV8/DA-63 (B12)}</math></p>



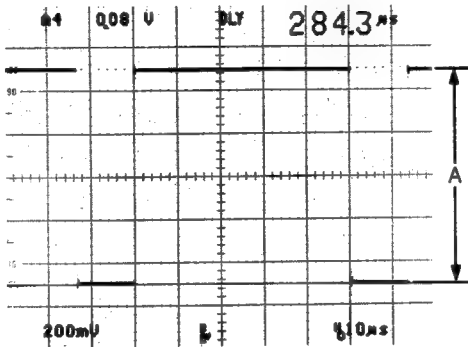
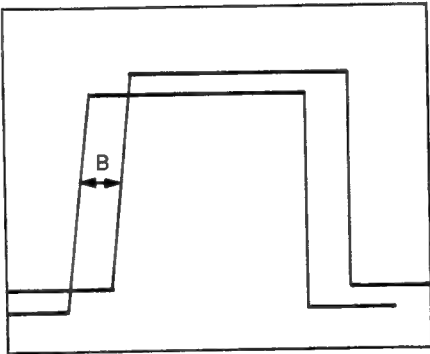
### 3-3-9. B.B BURST PHASE & WIDTH Adjustment

FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH4)</li> </ul>	<b>B.B OUT-1</b>  <p> <math>A = 5.60 \pm 0.1 \mu S</math>  <math>B = 2.25 \pm 0.1 \mu S</math> </p> <ul style="list-style-type: none"> <li>• Adjust <math>\text{RV8}</math> and <math>\text{RV9}</math> so that the specifications above are satisfied.</li> <li>• The 50% and 25% indicate the 50% of the SYNC level and the 25% of the BURST level.</li> </ul>	<b>A: BURST PHASE adjustment</b> $\text{RV9/DA-63 (B12)}$ <b>B: BURST WIDTH adjustment</b> $\text{RV8/DA-63 (B12)}$



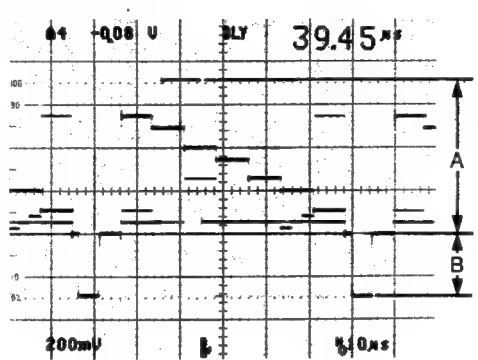
### 3-3-10. KEY OUT GAIN Adjustment

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON(For UC) S3-2/SY-172 (L10) = OFF(For EK)</li> <li>• Control panel setting:               <ol style="list-style-type: none"> <li>1. Select the PATTERN NUMBER = 1100.</li> <li>2. Push the AUTO TRANS button.</li> </ol> </li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH4)</li> </ul>	<b>KEY OUT</b>  <p><math>A = 1000 \pm 40 \text{ mV p-p}</math></p>	<b>KEY GAIN adjustment</b> ● RV516/DA-63 (H14)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Change the Oscilloscope setting to 200 mS/DIV. Same as STEP-2 except above setting.</li> </ul>	 <p><math>B = 1050 \pm 30 \text{ nS}</math></p> <ul style="list-style-type: none"> <li>• While changing S101 from 0 to F one level at a time, check that the phase of the waveform gradually delays. Also check that the above specification is satisfied when it changes from F to 0.</li> </ul>	<b>(Check)</b>



### 3-3-11. PGM OUT COMPONENT Y GAIN Adjustment

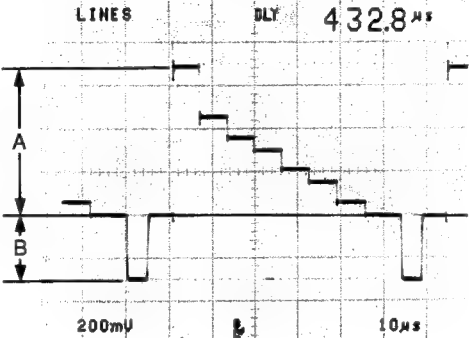
FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>Connection: Section 3-2-2 Connection</li> <li>Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>Switch setting: S3-2/SY-172 (L10) = ON</li> <li>Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>(1) or (2) is used.</li> <li>(1) Waveform Monitor                             <ul style="list-style-type: none"> <li>INPUT: CH-A</li> <li>MODE: WFM</li> <li>REF :EXT</li> </ul> </li> <li>(2) Oscilloscope                             <ul style="list-style-type: none"> <li>CH-1: 200 mV/DIV</li> <li>10 <math>\mu</math>S/DIV</li> <li>TRIG: B.B (CH4)</li> </ul> </li> </ul>	<b>COMPONENT 1 OUT Y</b>  <p>A = <math>714 \pm 5</math> mV p-p B = <math>286 \pm 4</math> mV p-p</p>	<b>A: Y GAIN adjustment</b> ● RV520/DA-63 (J14)  <b>B: SYNC LEVEL (Y)</b> ● RV518/DA-63 (H11)



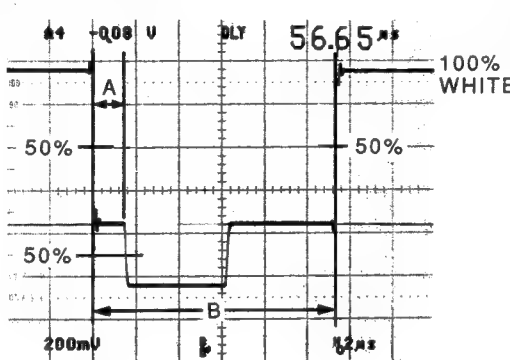
### (3-3-11. PGM OUT COMPONENT Y GAIN Adjustment)

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor               <ul style="list-style-type: none"> <li>INPUT: CH-A</li> <li>MODE: WFM</li> <li>REF : EXT</li> </ul> </li> <li>(2) Oscilloscope               <ul style="list-style-type: none"> <li>CH-1: 200 mV/DIV</li> <li>10 <math>\mu</math>S/DIV</li> <li>TRIG: B.B (CH4)</li> </ul> </li> </ul>	<b>COMPONENT 1 OUT Y</b>  <p>A = <math>700 \pm 5</math> mV p-p B = <math>300 \pm 4</math> mV p-p</p>	<p>A: Y GAIN adjustment ● RV520/DA-63 (J14)</p> <p>B: SYNC LEVEL (Y) ● RV518/DA-63 (H11)</p>



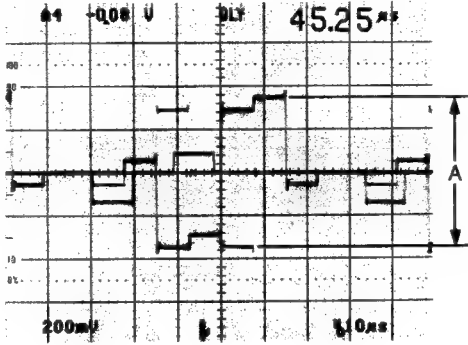
3-12. PGM OUT BLK PHASE & WIDTH Adjustment

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON(For UC) S3-2/SY-172 (L10) = OFF(For EK)</li><li>• Built-in color bar: COL BKGD (100% WHITE) To select: See section 3-2-3.</li></ul></div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• (1) or (2) is used.</li><li>(1) Waveform Monitor INPUT: CH-B1 MODE: WFM REF :EXT</li><li>(2) Oscilloscope CH-1: 200 mV/DIV 2 μS/DIV TRIG: B.B (CH4)</li></ul></div>	<div>COMPONENT 1 OUT Y</div> <div><p>A = <math>1.5 \pm 0.1 \mu\text{S}</math> B = <math>10.9 \pm 0.1 \mu\text{S}</math> (For UC) <math>12.0 \pm 0.1 \mu\text{S}</math> (For EK)</p><ul style="list-style-type: none"><li>• Adjust ⒶRV6 and ⒶRV7 so that the specifications above are satisfied.</li><li>• The 50% above indicates the 50% of the levels of both VIDEO and SYNC respectively.</li></ul></div>	<div>A: BLK PHASE adjustment ⒶRV7/DA-63 (B11)</div> <div>B: BLK WIDTH adjustment ⒶRV6/DA-63 (B11)</div>



3-3-13. PGM OUT COMPONENT R-Y GAIN Adjustment

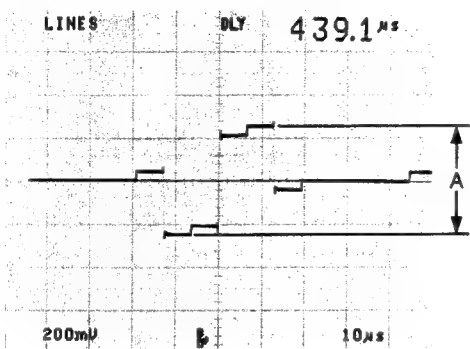
FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON</li><li>• Built-in color bar: COLOR BAR</li></ul>To select: See section 3-2-3.</div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• (1) or (2) is Used.</li><li>(1) Waveform Monitor INPUT: CH-B2 MODE: WFM REF : EXT</li><li>(2) Oscilloscope CH-1: 200 mV/DIV 10 μS/DIV TRIG: B.B (CH-4)</li></ul></div>	<div>COMPONENT 1 OUT R-Y</div> <div><p>A = 700 ± 5 mV p-p</p></div>	<div>R-Y GAIN adjustment</div> <div>● RV522/DA-63 (J14)</div>



### 3-3-13. PGM OUT COMPONENT R-Y GAIN Adjustment)

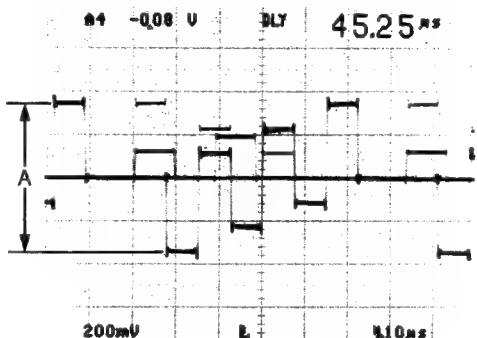
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COLOR BAR To select: See section 3-2-3.</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is Used.</li> <li>(1) Waveform Monitor INPUT: CH-B2 MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPONENT 1 OUT R-Y</b>  <p><math>A = 525 \pm 7 \text{ mV p-p}</math></p>	<b>R-Y GAIN adjustment</b> ● RV522/DA-63 (J14)



### 3-3-14. PGM OUT COMPONENT B-Y GAIN Adjustment

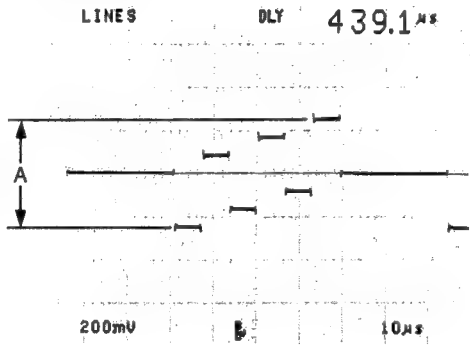
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-B3 MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPONENT 1 OUT B-Y</b>  <p><math>A = 700 \pm 5 \text{ mV p-p}</math></p>	<b>B-Y GAIN adjustment</b> ● RV524/DA-63 (J14)



### 3-14. PGM OUT COMPONENT B-Y GAIN Adjustment)

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection:Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-B3 MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPONENT 1 OUT B-Y</b>  <p><math>A = 525 \pm 7 \text{ mV p-p}</math></p>	<b>B-Y GAIN adjustment</b> ● RV524/DA-63 (J14)



**00000000**

1. *Chlorophyll a* (Chl *a*)  
 2. *Chlorophyll b* (Chl *b*)  
 3. *Chlorophyll c* (Chl *c*)  
 4. *Chlorophyll d* (Chl *d*)  
 5. *Chlorophyll e* (Chl *e*)  
 6. *Chlorophyll f* (Chl *f*)  
 7. *Chlorophyll g* (Chl *g*)  
 8. *Chlorophyll h* (Chl *h*)  
 9. *Chlorophyll i* (Chl *i*)  
 10. *Chlorophyll j* (Chl *j*)  
 11. *Chlorophyll k* (Chl *k*)  
 12. *Chlorophyll l* (Chl *l*)  
 13. *Chlorophyll m* (Chl *m*)  
 14. *Chlorophyll n* (Chl *n*)  
 15. *Chlorophyll o* (Chl *o*)  
 16. *Chlorophyll p* (Chl *p*)  
 17. *Chlorophyll q* (Chl *q*)  
 18. *Chlorophyll r* (Chl *r*)  
 19. *Chlorophyll s* (Chl *s*)  
 20. *Chlorophyll t* (Chl *t*)  
 21. *Chlorophyll u* (Chl *u*)  
 22. *Chlorophyll v* (Chl *v*)  
 23. *Chlorophyll w* (Chl *w*)  
 24. *Chlorophyll x* (Chl *x*)  
 25. *Chlorophyll y* (Chl *y*)  
 26. *Chlorophyll z* (Chl *z*)  
 27. *Chlorophyll aa* (Chl *aa*)  
 28. *Chlorophyll ab* (Chl *ab*)  
 29. *Chlorophyll ac* (Chl *ac*)  
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 34. *Chlorophyll ah* (Chl *ah*)  
 35. *Chlorophyll ai* (Chl *ai*)  
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 46. *Chlorophyll at* (Chl *at*)  
 47. *Chlorophyll au* (Chl *au*)  
 48. *Chlorophyll av* (Chl *av*)  
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 50. *Chlorophyll ax* (Chl *ax*)  
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 96. *Chlorophyll aqz* (Chl *aqz*)  
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 133.



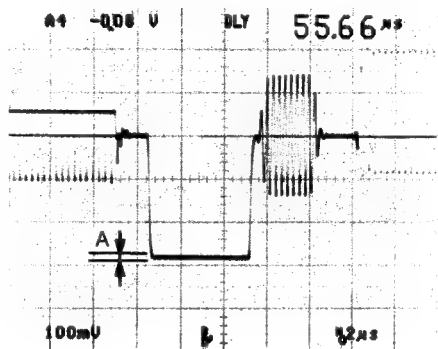
[illegible]

**DFS-500/500P**



### 3-3-17. COMPOSITE SC LEAK BALANCE Adjustment

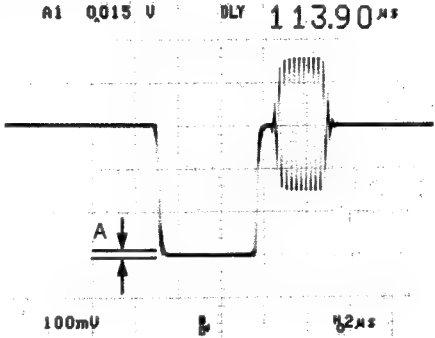
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>A = Below 20 mV p-p (Adjust to minimum.)</p>	<b>SC LEAK (R-Y) adjustment</b> ● RV511/DA-63 (H7)  <b>SC LEAK (B-Y) adjustment</b> ● RV514/DA-63 (H8)



### 3-3-17. COMPOSITE SC LEAK BALANCE Adjustment)

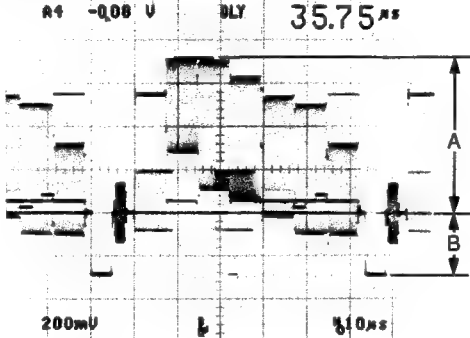
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>A = Below 20 mV p-p (Adjust to minimum.)</p>	<b>SC LEAK (R-Y) adjustment</b> ● RV511/DA-63 (H7)  <b>SC LEAK (B-Y) adjustment</b> ● RV514/DA-63 (H8)



### 3-3-18. COMPOSITE Y GAIN Adjustment

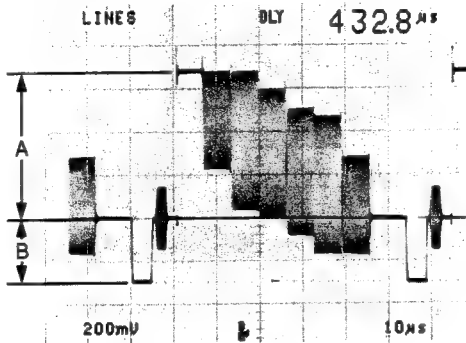
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>A = 714 <math>\pm</math> 5 mV p-p B = 286 <math>\pm</math> 4 mV p-p</p>	<b>A: COMPOSITE GAIN adjustment</b> ⦿ RV507/DA-63 (K14)  <b>B: SYNC LEVEL adjustment</b> ⦿ RV504/DA-63 (L10)



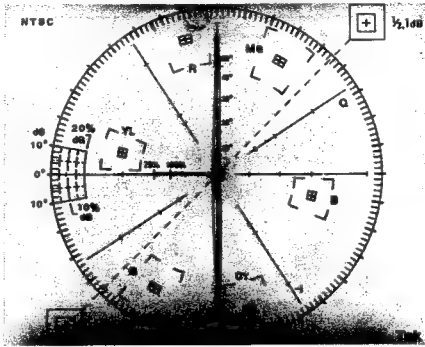
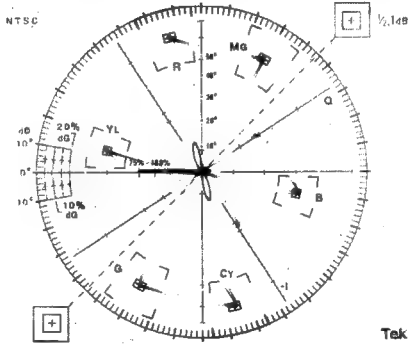
### 3-3-18. COMPOSITE Y GAIN Adjustment

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>A = 700 <math>\pm</math> 5 mV p-p B = 300 <math>\pm</math> 4 mV p-p</p>	<b>A: COMPOSITE GAIN adjustment</b> ● RV507/DA-63 (K14)  <b>B: SYNC LEVEL adjustment</b> ● RV504/DA-63 (L10)



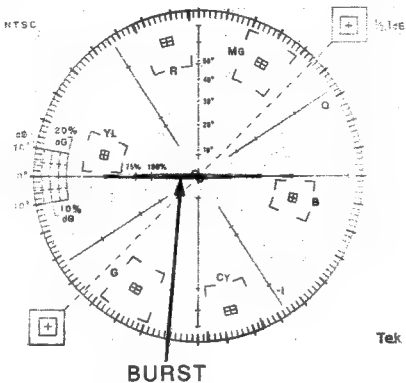
### 3-3-19. MODURATION AXIS Adjustment (FOR UC ONLY)

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Select the INPUT 1 of BACKGROUND and FOREGROUND.</li> <li>• Setting the S1 of COMPONENT in the AD-76 board.</li> <li>• Disconnect CH-2 of the signal generator (TSG-300). (Disconnect B-Y signal)</li> <li>• Vectorscope 75%, SET UP L.DISP : VECT INPUT : CH-A FILTER: FLAT REF : EXT</li> </ul>	<b>PGM OUT (COMPOSITE)</b>  <ul style="list-style-type: none"> <li>• Adjust the phase shift knob of the vectorscope until its luminance points form a vertical line.</li> </ul>	
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Connect the CH-2 of the signal generator (TSG-300) and disconnect CH-3. (Disconnect B-Y signal)</li> <li>• Vectorscope 75%, SET UP L.DISP : VECT INPUT : CH-A FILTER: FLAT REF : EXT</li> </ul>	<b>PGM OUT (COMPOSITE)</b>  <ul style="list-style-type: none"> <li>• Adjust RV301 until the luminance points on the vectorscope form a horizontal line.</li> </ul>	<b>MODURATION AXIS adjustment</b> ● RV301/DA-63 (E8)



3-3-20. COMPOSITE C GAIN Adjustment

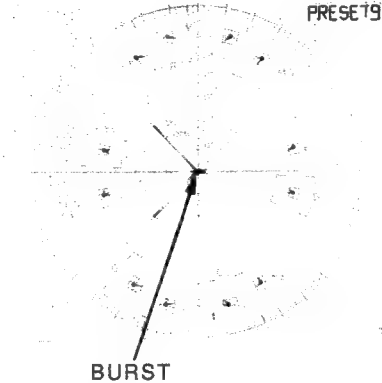
FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON</li><li>• Built-in color bar: COL BAR</li></ul><div>To select: See section 3-2-3.</div></div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• Vectorscope</li></ul><div>75%, SET UP</div><div>L.DISP : VECT</div><div>INPUT : CH-A</div><div>FILTER: FLAT</div><div>REF : EXT</div></div>	<div>COMPOSITE OUT-1</div> <div></div> <div>All luminance points should be inside the respective "田" mark on the vectorscope.</div> <div><ul style="list-style-type: none"><li>• Adjust ●RV506 and ●RV521 so that MG, B, CY, G, YL and R satisfy the above specifications.</li></ul></div>	<div>C LEVEL adjustment</div> <div>●RV506/DA-63 (L11)</div> <div> </div> <div>B-Y AXIS LEVEL adjustment</div> <div>●RV512/DA-63 (H8)</div>



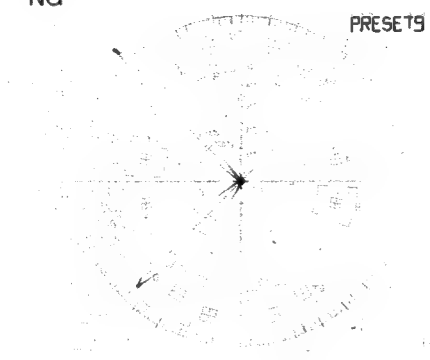
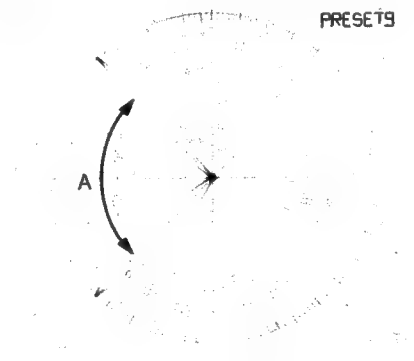
### (3-3-20. COMPOSITE C GAIN Adjustment)

#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Vectorscope 75% L.DISP : VECT INPUT : CH-A FILTER: FLAT REF : EXT</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>All luminance points should be inside the respective "田" mark on the vectorscope.</p> <ul style="list-style-type: none"> <li>• Adjust ●RV506 and ●RV521 so that MG, mg, B, b, CY, cy, G, g, YL, yl, R and r satisfy the above specifications.</li> </ul>	<b>C LEVEL adjustment</b> ● RV506/DA-63 (L11)  <b>B-Y AXIS LEVEL adjustment</b> ● RV512/DA-63 (H8)



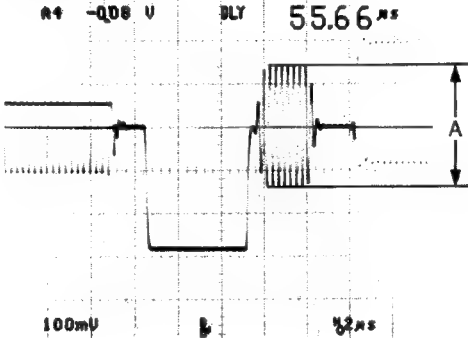
3-3-21. COMPOSITE BURST BALANCE Adjustment (FOR EK ONLY)

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = OFF</li></ul></div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• Vectorscope 75% L.DISP : VECT INPUT : CH-A FILTER: FLAT REF : EXT</li></ul></div>	<div>COMPOSITE OUT-1</div> <div><div>NG</div></div> <div><div>OK</div><div><math>A = 90 \pm 0.5^\circ</math></div><div><ul style="list-style-type: none"><li>• Set the spot of BURST on the position of circumference by GAIN control on the vector scope. Then adjust ⚙RV513 so that A is the specification.</li></ul></div></div>	<div>BURST BALANCE adjustment</div> <div>⚙RV513/DA-63 (H7)</div>



3-3-22. COMPOSITE BURST LEVEL Adjustment

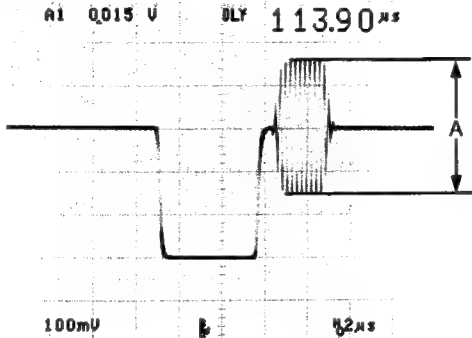
FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the DA-63 board with the EX-326 board.</li><li>• Switch setting: S3-2/SY-172 (L10) = ON</li><li>• Built-in color bar: COL BAR</li></ul>To select: See section 3-2-3.</div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• (1) or (2) is used.</li><li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li><li>(2) Oscilloscope CH-1: 100 mV/DIV 2 μS/DIV TRIG: B.B (CH-4)</li></ul></div>	<div>COMPOSITE OUT-1</div> <div></div> <div>A = 286 ± 4 mV p-p</div>	<div>BURST LEVEL (PGM) adjustment</div> <div>● RV525/DA-63 (H10)</div>



### 3-3-22. COMPOSITE BURST LEVEL Adjustment)

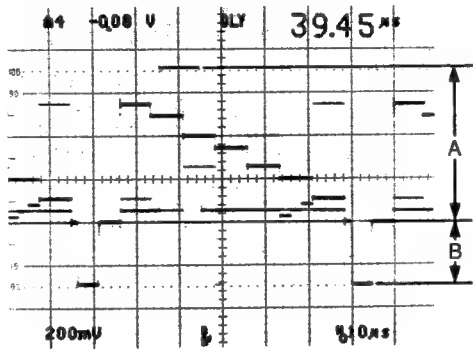
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 100 mV/DIV 2 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>COMPOSITE OUT-1</b>  <p>A = 300 ± 4 mV p-p</p>	<b>BURST LEVEL (PGM) adjustment</b> ● RV525/DA-63 (H10)



### 3-3-23. Y/C (S) Y GAIN Adjustment

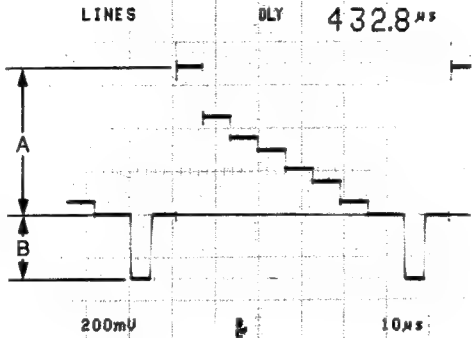
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>Y/C-1 OUT Y</b>  <p>A = <math>714 \pm 5</math> mV p-p B = <math>286 \pm 4</math> mV p-p</p>	<b>S-Y GAIN adjustment</b> ● RV508/DA-63 (K14)



### 3-3-23. Y/C (S) Y GAIN Adjustment

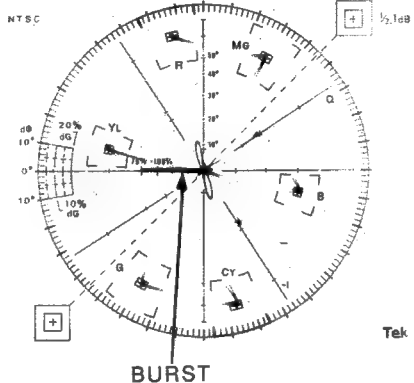
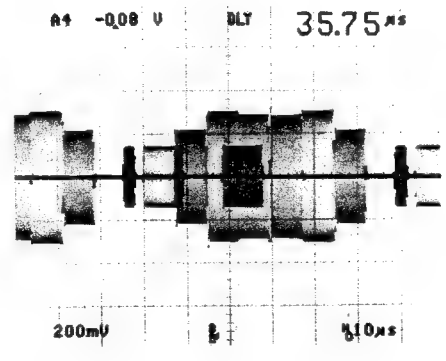
#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF :EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<b>Y/C-1 OUT Y</b>  <p>A = <math>700 \pm 5</math> mV p-p B = <math>300 \pm 4</math> mV p-p</p>	<b>S-Y GAIN adjustment</b> ● RV508/DA-63 (K14)



### 3-3-24. Y/C (S) C GAIN Adjustment

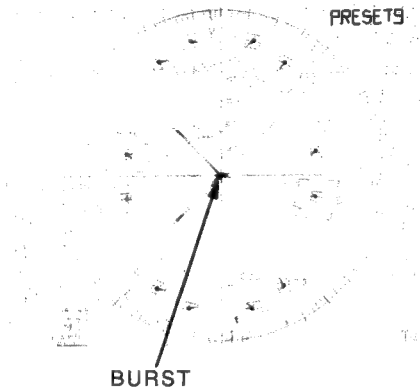
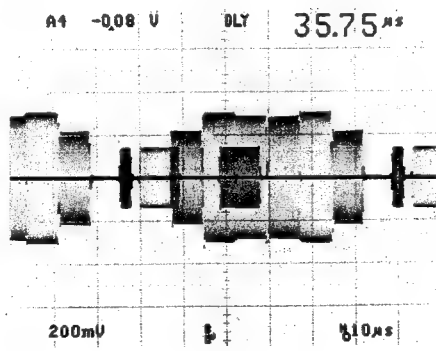
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>• Switch setting: S3-2/SY-172 (L10) = ON</li> <li>• Built-in color bar: COL BAR</li> </ul> <p>To select: See section 3-2-3.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Vectorscope 75%, SET UP L.DISP : VECT INPUT : CH-A FILTER : FLAT REF : EXT</li> </ul>	<b>Y/C-1 OUT C</b>  <p>All luminance points should be inside the respective "田" mark on the vectorscope.</p> <ul style="list-style-type: none"> <li>• Adjust RV509 so that MG, B, CY, G, YL and R satisfy the above specifications.</li> </ul>	<b>S-C GAIN adjustment</b> ● RV509/DA-63 (K14)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• (1) or (2) is used.</li> <li>(1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT</li> <li>(2) Oscilloscope CH-1: 200 mV/DIV 10 μS/DIV TRIG: B.B (CH-4)</li> </ul>	<b>Y/C-1 OUT C</b>  <ul style="list-style-type: none"> <li>• Check that the above waveform is displayed.</li> </ul>	(Check)



### 3-3-24. Y/C (S) C GAIN Adjustment

FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>Connection: Section 3-2-2 Connection</li> <li>Extension board: Extend the DA-63 board with the EX-326 board.</li> <li>Switch setting: S3-2/SY-172 (L10) = OFF</li> <li>Built-in color bar: COL BAR To select: See section 3-2-3.</li> </ul>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>Vectorscope 75% L.DISP : VECT INPUT : CH-A FILTER : FLAT REF : EXT</li> </ul>	<b>Y/C-1 OUT C</b>  <p>All luminance points should be inside the respective "田" mark on the vectorscope.</p> <ul style="list-style-type: none"> <li>Adjust RV509 so that MG, mg, B, b, CY, cy, G, g, YL, yl, R and r satisfy the above specifications.</li> </ul>	<b>S-C GAIN adjustment</b> RV509/DA-63 (K14)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>(1) or (2) is used. (1) Waveform Monitor INPUT: CH-A MODE: WFM REF : EXT (2) Oscilloscope CH-1 : 200 mV/DIV 10 μS/DIV TRIG: B.B (CH-4)</li> </ul>	<b>Y/C-1 OUT C</b>  <ul style="list-style-type: none"> <li>Check that the above waveform is displayed.</li> </ul>	(Check)



3-4. AD-76 BOARD ADJUSTMENTS

3-4-1. COMPONENT CLAMP LEVEL Adjustment

FOR UC

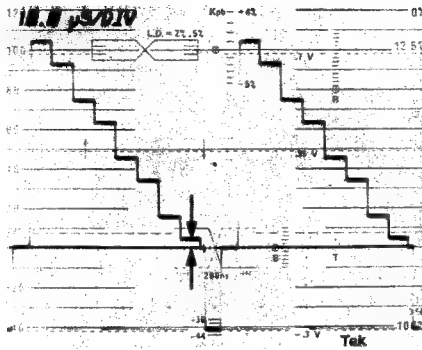
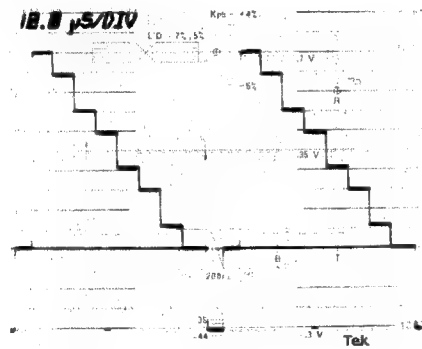
NOTE: Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: COMPONENT 100% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output.<div>Test points    When adjusting A BUS: TP141/AD-76 (D13)                       When adjusting B BUS: TP241/AD-76 (J12)</div>When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul></div> <div>NOTE: Adjust A BUS and B BUS in the same way for each bus.</div>		



(3-4-1. COMPONENT CLAMP LEVEL Adjustment)

OR UC

Machine conditions for adjustment	Specifications	Adjusting Point
STEP-2	<p>PGM OUT (COMPONENT Y)</p> <p>NG</p>  <p>OK</p>  <p>• Adjust so that the difference in the pedestal steps becomes 0.</p>	<p>A BUS: Y DC adjustment ● RV121/AD-76 (D12)</p> <p>B BUS: Y DC adjustment ● RV221/AD-76 (J12)</p>
• Waveform monitor INPUT: CH-B1 MODE: WFM REF : EXT		



**FOR UC**

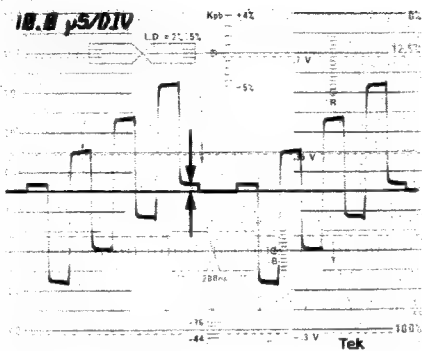
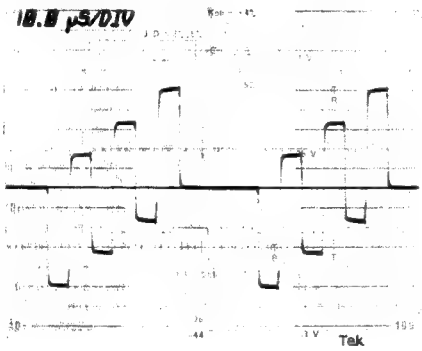
- Waveform monitor  
INPUT: CH-B2  
MODE: WFM  
REF : EXT

- Adjust so that the difference in the pedestal steps becomes 0.



### 3-4-1. COMPONENT CLAMP LEVEL Adjustment)

**FOR UC**

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-4</p>                      <ul style="list-style-type: none"> <li>• Waveform monitor</li> </ul> INPUT: CH-B3 MODE: WFM REF : EXT	<p>PGM OUT (COMPONENT B-Y)</p> <div data-bbox="528 495 959 866"> <p>NG</p>  </div> <div data-bbox="528 958 959 1330"> <p>OK</p>  </div> <ul style="list-style-type: none"> <li>• Adjust so that the difference in the pedestal steps becomes 0.</li> </ul>	<p>A BUS: B-Y DC adjustment        ⓧ RV123/AD-76 (B12)</p> <p>B BUS: B-Y DC adjustment        ⓧ RV223/AD-76 (K12)</p>



(3-4-1. COMPONENT CLAMP LEVEL Adjustment)

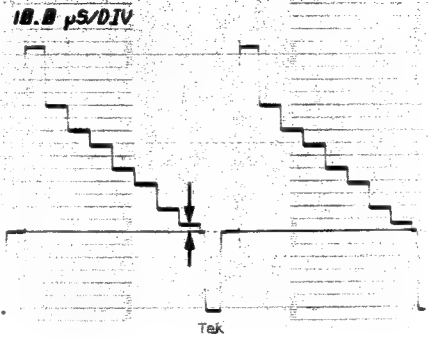
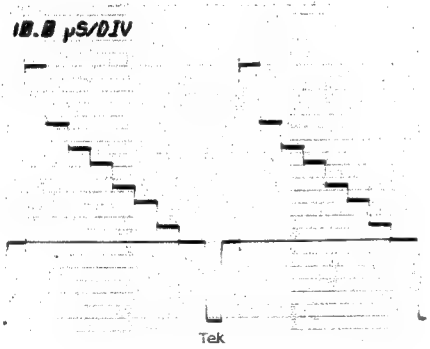
FOR EK

NOTE: Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: COMPONENT 75% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output.<div>Test points    When adjusting A BUS: TP141/AD-76 (D13)                       When adjusting B BUS: TP241/AD-76 (J12)</div>When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul></div> <div>NOTE: Adjust A BUS and B BUS in the same way for each bus.</div>		



(3-4-1. COMPONENT CLAMP LEVEL Adjustment)

Machine conditions for adjustment	Specifications	Adjusting Point
<div data-bbox="49 459 151 492">STEP-2</div> <div data-bbox="49 1388 284 1512"><ul style="list-style-type: none"><li>Waveform monitor INPUT : CH-B1 MODE : WFM REF : EXT</li></ul></div>	<div data-bbox="470 459 782 492">PGM OUT (COMPONENT Y)</div> <div data-bbox="526 526 566 560">NG</div> <div data-bbox="534 560 965 896"><p>10.0 <math>\mu</math>S/DIV</p><p>Tek</p></div> <div data-bbox="526 985 566 1019">OK</div> <div data-bbox="534 1019 965 1366"><p>10.0 <math>\mu</math>S/DIV</p><p>Tek</p></div> <div data-bbox="470 1444 1013 1512"><ul style="list-style-type: none"><li>Adjust so that the difference in the pedestal steps becomes 0.</li></ul></div>	<div data-bbox="1061 459 1332 515">A BUS: Y DC adjustment ● RV121/AD-76 (D12)</div> <div data-bbox="1061 548 1332 604">B BUS: Y DC adjustment ● RV221/AD-76 (J12)</div>



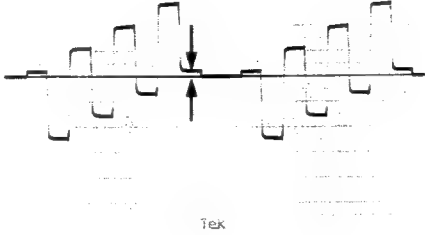
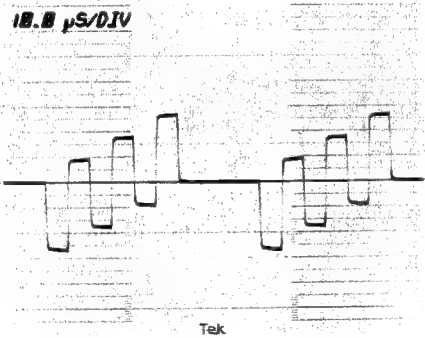
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[illegible]



(3-4-1. COMPONENT CLAMP LEVEL Adjustment)

FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
STEP-4	<p>PGM OUT (COMPONENT B-Y)</p> <p>NG</p> <p>18.0 <math>\mu</math>S/DIV</p>  <p>OK</p> <p>18.0 <math>\mu</math>S/DIV</p> 	<p>A BUS: B-Y DC adjustment ● RV123/AD-76 (B12)</p> <p>B BUS: B-Y DC adjustment ● RV223/AD-76 (K12)</p>
<ul style="list-style-type: none"><li>Waveform monitor INPUT: CH-B3 MODE: WFM REF : EXT</li></ul>	<ul style="list-style-type: none"><li>Adjust so that the difference in the pedestal steps becomes 0.</li></ul>	



**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

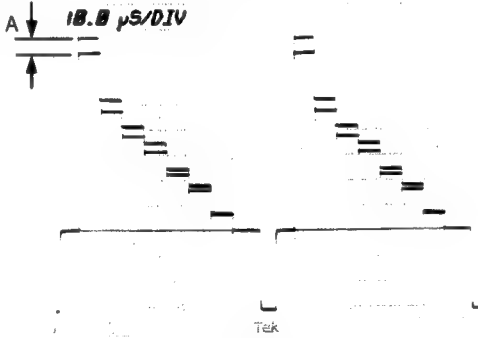
DFS-500/500P



### 3-4-2. COMPONENT Y LEVEL Adjustment

#### FOR EK

**OTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 75% Color Bars</li> <li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = OFF</li> <li>• Control panel setting: <ol style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li> </ol> <p>After completing the above settings, check that the Y signal has been output.</p> <p>Test points    When adjusting A BUS: TP141/AD-76 (D13)                       When adjusting B BUS: TP241/AD-76 (J12)</p> <p>When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</p> </li> <li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li> </ul>		
<b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Position of the fader lever: In the vicinity of the center</li> <li>• The color bars of input 1 and the white(100%) of the built-in color bar should be seen simultaneously.</li> </ul>	<b>PGM OUT (COMPONENT Y)</b>  <ul style="list-style-type: none"> <li>• Adjust so that the difference between the color bars (Y) of input 1 and the built-in color bars (Y) becomes 0 mV. (The color bars (Y) of input 1 and the built-in color bars (Y) is 700 mV.)</li> </ul>	<b>A BUS: CPNT Y GAIN adjustment</b> ● RV117/AD-76 (D10)  <b>B BUS: CPNT Y GAIN adjustment</b> ● RV217/AD-76 (J11)
<ul style="list-style-type: none"> <li>• Waveform monitor INPUT: CH-B1 MODE: WFM REF : EXT</li> </ul>		



### 3-4-3. COMPONENT CHROMA LEVEL Adjustment

#### FOR UC

**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-1</p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 100% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER=Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                      When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



### (3-4-3. COMPONENT CHROMA LEVEL Adjustment)

**OR UC**

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-2</b> <ul style="list-style-type: none"> <li>Position of fader lever: In the vicinity of the center</li> </ul>	<p>PGM OUT (COMPONENT R-Y)</p> <p>NG</p> <p>5.0 <math>\mu</math>S/DIV</p> <p>OK</p> <p>5.0 <math>\mu</math>S/DIV</p>	<p>A BUS: CPNT R-Y GAIN adjustment ● RV118/AD-76 (C11)</p> <p>B BUS: CPNT R-Y GAIN adjustment ● RV218/AD-76 (L11)</p>



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### 3-4-3. COMPONENT CHROMA LEVEL Adjustment)

#### FOR EK

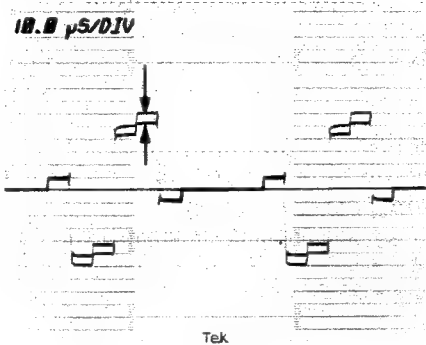
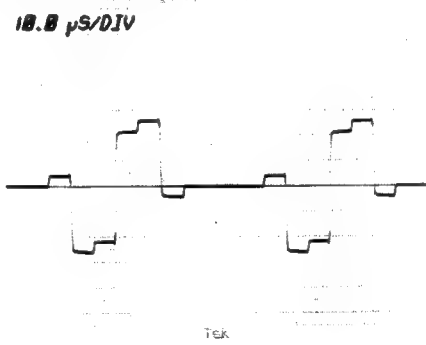
**OTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                     When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



(3-4-3. COMPONENT CHROMA LEVEL Adjustment)

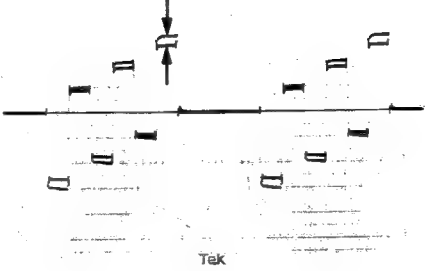
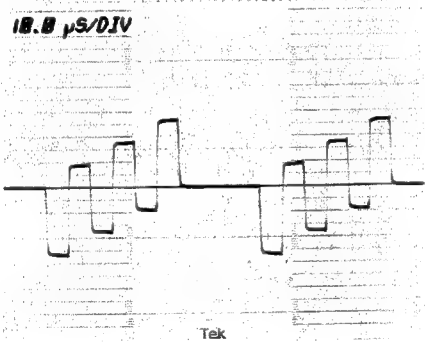
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>Position of fader lever: In the vicinity of the center</li></ul></div> <div><div><ul style="list-style-type: none"><li>Waveform monitor INPUT: CH-B2 MODE: WFM REF : EXT</li></ul></div></div>	<div>PGM OUT (COMPONENT R-Y)</div> <div>NG</div> <div></div> <div>OK</div> <div></div> <div><ul style="list-style-type: none"><li>Adjust so that the amplitudes of the color bars (R-Y) of input 1 and the built-in color bars (R-Y) become equal.</li></ul></div>	<div>A BUS: CPNT R-Y GAIN adjustment</div> <div><ul style="list-style-type: none"><li>RV118/AD-76 (C11)</li></ul></div> <div>B BUS: CPNT R-Y GAIN adjustment</div> <div><ul style="list-style-type: none"><li>RV218/AD-76 (L11)</li></ul></div>



# J-4-3. COMPONENT CHROMA LEVEL Adjustment

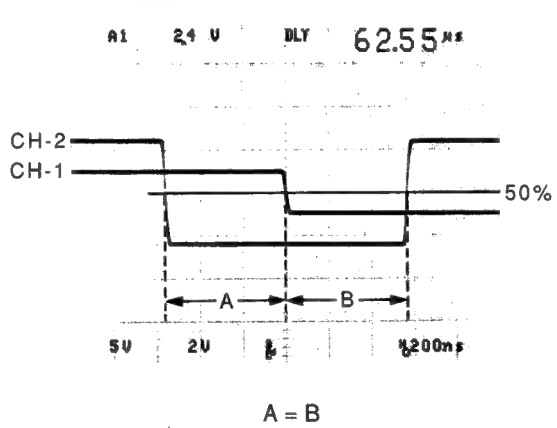
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-3</b></p> <ul style="list-style-type: none"> <li>Position of fader lever: In the vicinity of the center</li> </ul>	<p>PGM OUT (COMPONENT B-Y)</p> <p>NG</p> <p><i>18.8 <math>\mu</math>S/DIV</i></p>  <p>OK</p> <p><i>18.8 <math>\mu</math>S/DIV</i></p>  <ul style="list-style-type: none"> <li>Adjust so that the amplitudes of the color bars (B-Y) of input 1 and the built-in color bars (B-Y) become equal.</li> </ul>	<p>A BUS: CPNT B-Y GAIN adjustment ● RV119/AD-76 (B11)</p> <p>B BUS: CPNT B-Y GAIN adjustment ● RV219/AD-76 (K11)</p>
<ul style="list-style-type: none"> <li>Waveform monitor INPUT: CH-B3 MODE: WFM REF : EXT</li> </ul>		



### 3-4-4. W HD PHASE Adjustment

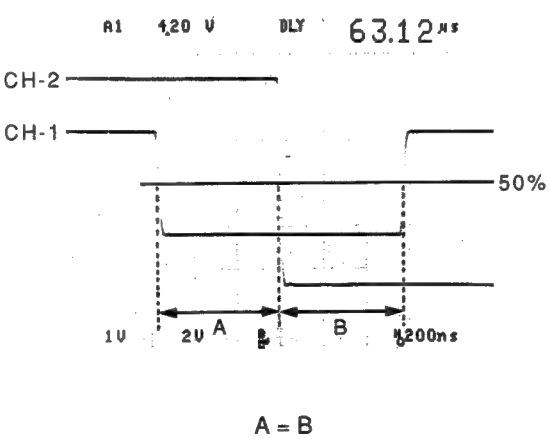
#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 100% Color Bars</li> <li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = ON</li> </ul> <b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Digital voltmeter</li> </ul>	A BUS: TP163/AD-76 (A9) B BUS: TP263/AD-76 (M13)  2.8 V dc	A BUS: VFO BIAS adjustment ⚙ LV101/AD-76 (B10)  B BUS: VFO BIAS adjustment ⚙ LV201/AD-76 (N13)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Oscilloscope MODE: DELAY CH-1 : 5 V/DIV 10 <math>\mu</math>S/DIV CH-2 : 2 V/DIV 200 mS/DIV TRIG : CH-1</li> </ul>	A BUS CH-1: TP156/AD-76 (A7) CH-2: TP158/AD-76 (A8) B BUS CH-1: TP256/AD-76 (M10) CH-2: TP258/AD-76 (M11)  	A BUS: W HD PHASE adjustment ⚙ RV131/AD-76 (B8)  B BUS: W HD PHASE adjustment ⚙ RV231/AD-76 (N12)



### 3-4-4. W HD PHASE Adjustment

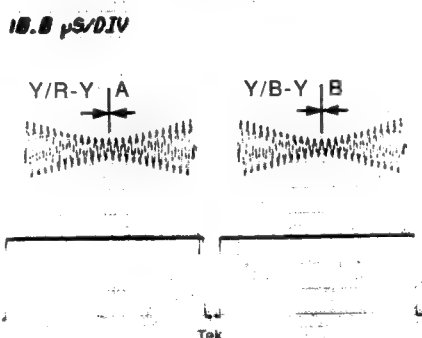


#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 75% Color Bars</li> <li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = OFF</li> </ul> <b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Digital voltmeter</li> </ul>	A BUS: TP163/AD-76 (A9) B BUS: TP263/AD-76 (M13)  2.8 V dc	A BUS: VFO BIAS adjustment ⌚ LV101/AD-76 (B10)  B BUS: VFO BIAS adjustment ⌚ LV201/AD-76 (N13)
<b>STEP-3</b> <ul style="list-style-type: none"> <li>• Oscilloscope MODE: DELAY CH-1 : 5 V/DIV 10 <math>\mu</math>S/DIV CH-2 : 2 V/DIV 200 mS/DIV TRIG : CH-1</li> </ul>	A BUS CH-1: TP156/AD-76 (A7) CH-2: TP158/AD-76 (A8) B BUS CH-1: TP256/AD-76 (M10) CH-2: TP258/AD-76 (M11)   <p>             A1 420 V DLY 63.12 <math>\mu</math>S              CH-2              CH-1              50%              1V 2V A B 200ns              A = B           </p>	A BUS: W HD PHASE adjustment ⌚ RV131/AD-76 (B8)  B BUS: W HD PHASE adjustment ⌚ RV231/AD-76 (N12)



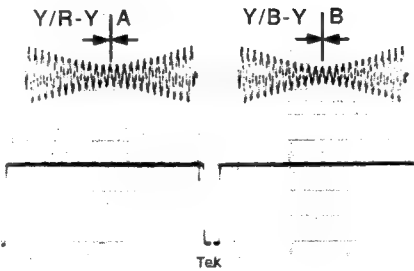


### 3-4-5. COMPONENT Y/C DELAY Adjustment

**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: BOWTIE</li> <li>• Switch setting: S1/AD-76 (D1) = COMPONENT S3-2/SY-172 (L10) = ON (For UC) S3-2/SY-172 (L10) = OFF (For EK)</li> <li>• Control panel setting: <ul style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li> </ul> </li> </ul> <p>After completing the above settings, check that the Y signal has been output.</p> <p>Test points    When adjusting A BUS: TP141/AD-76 (D13)                       When adjusting B BUS: TP241/AD-76 (J12)</p> <p>When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</p> <ul style="list-style-type: none"> <li>4. FOREGROUND BUS = 1</li> <li>5. The signal of A BUS is output at the top of the fader lever. The signal of B BUS is output at the bottom of the fader lever. Adjustment can be performed for each bus.</li> </ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		
<p><b>STEP-2</b></p> <ul style="list-style-type: none"> <li>• Waveform monitor MEASURE: BOWTIE INPUT : CH-B1 (COMPONENT Y) CH-B2 (COMPONENT R-Y) CH-B3 (COMPONENT B-Y)</li> <li>MODE : WFM REF : EXT</li> </ul>	<p>CH-B1: PGM OUT (COMPONENT Y) CH-B2: PGM OUT (COMPONENT R-Y) CH-B3: PGM OUT (COMPONENT B-Y)</p>  <p><math>10.0 \mu\text{S}/\text{DIV}</math></p> <p>Y/R-Y A      Y/B-Y B</p> <p>A = <math>0 \pm 10 \text{ nS}</math></p> <ul style="list-style-type: none"> <li>• Set the each BOWTIE DIP point A and B on the center marker.</li> </ul>	<p><b>Y/R-Y DELAY</b> A BUS: CPNT V DL adjustment FL114/AD-76 (C10) Adjusting point: </p> <p><b>B BUS: CPNT V DL</b> adjustment FL214/AD-76 (L10) Adjusting point: </p> <p><b>NOTE:</b> Do not touch adjusting points other than the above.</p>



(3-4-5. COMPONENT Y/C DELAY Adjustment)

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-3</div> <div><div>• Waveform monitor</div><div>MEASURE: BOWTIE</div><div>INPUT : CH-B1</div><div>(COMPONENT Y)</div><div>CH-B2</div><div>(COMPONENT R-Y)</div><div>CH-B3</div><div>(COMPONENT B-Y)</div><div>MODE : WFM</div><div>REF : EXT</div></div>	<div>CH-B1:PGM OUT (COMPONENT Y)</div> <div>CH-B2:PGM OUT (COMPONENT R-Y)</div> <div>CH-B3:PGM OUT (COMPONENT B-Y)</div> <div><div><div><div>10.0 <math>\mu</math>S/0.1V</div><div><div>Y/R-Y A</div><div>Y/B-Y B</div></div><div></div><div>B = 0 ± 10 nS</div></div></div><div>• Set the each BOWTIE DIP point A and B on the center marker.</div></div>	<div>Y/B-Y DELAY</div> <div>A BUS: CPNT U DL</div> <div>adjustment</div> <div>FL115/AD-76 (B10)</div> <div>Adjusting point: </div> <div>B BUS: CPNT U DL</div> <div>adjustment</div> <div>FL215/AD-76 (K10)</div> <div>Adjusting point: </div> <div><b>NOTE:</b> Do not touch adjusting points other than the above.</div>



### 3-4-6. Y/C Input Y LEVEL Adjustment

#### FOR UC

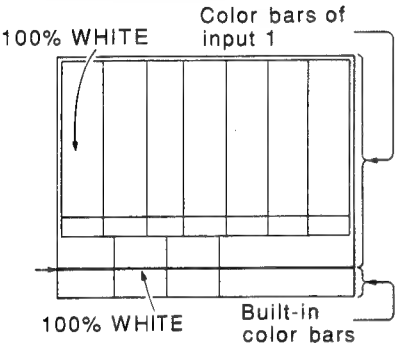
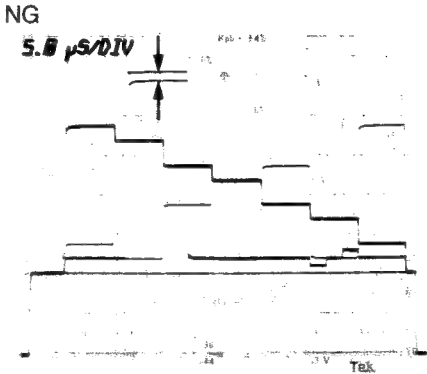
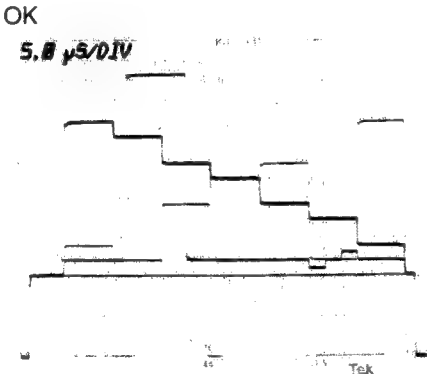
**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-1</p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars (100/7.5/77/7.5 Color Bars)</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                     When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



(3-4-6. Y/C Input Y LEVEL Adjustment)

OR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-2</p> <ul style="list-style-type: none"><li>Position of the fader lever: Position at which 100% WHITE can be compared.</li></ul> <div></div> <ul style="list-style-type: none"><li>Waveform monitor INPUT: CH-A MODE: WFM REF : EXT</li></ul>	<p>PGM OUT (Y/C Y or COMPONENT)</p> <p>NG</p> <div></div> <p>OK</p> <div></div> <ul style="list-style-type: none"><li>Adjust so that there is no difference between the color bars of input 1 and the built-in color bars.</li></ul>	<p>A BUS: SEP Y GAIN adjustment ● RV111/AD-76 (D8)</p> <p>B BUS: SEP Y GAIN adjustment ● RV211/AD-76 (J8)</p>





### (3-4-6. Y/C Input Y LEVEL Adjustment)

#### FOR EK

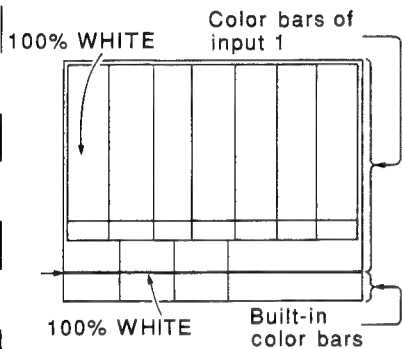
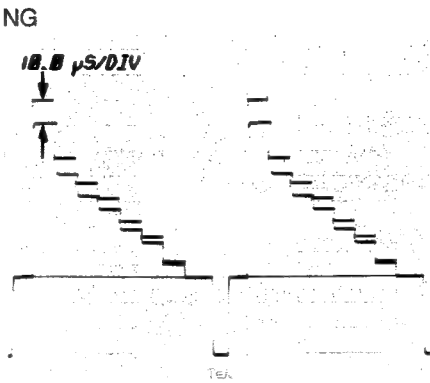
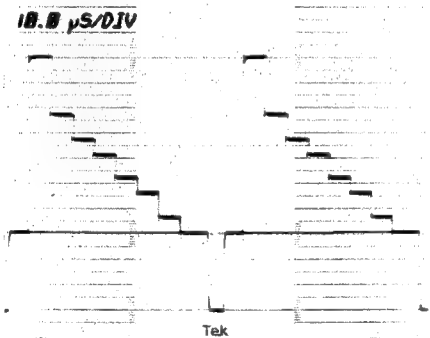
**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                     When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul> <b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.		



(3-4-6. Y/C Input Y LEVEL Adjustment)

OR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>Position of the fader lever: Position at which 100% WHITE can be compared.</li></ul></div> <div></div> <div><ul style="list-style-type: none"><li>Waveform monitor INPUT: CH-A MODE: WFM REF : EXT</li></ul></div>	<div>PGM OUT (Y/C Y or COMPONENT)</div> <div><p>NG</p><p>OK</p></div> <div><ul style="list-style-type: none"><li>Adjust so that there is no difference between the color bars of input 1 and the built-in color bars.</li></ul></div>	<div>A BUS: SEP Y GAIN adjustment ● RV111/AD-76 (D8)</div> <div>B BUS: SEP Y GAIN adjustment ● RV211/AD-76 (J8)</div>



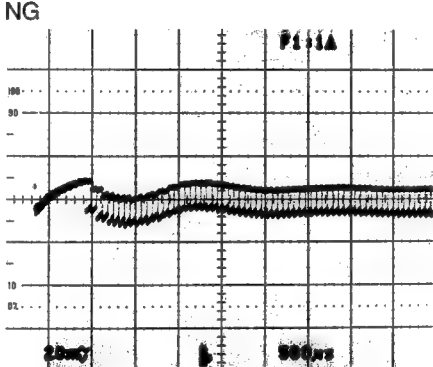
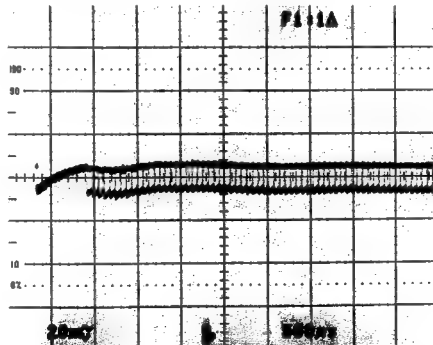
**FOR UC**

- Oscilloscope  
CH-1: 20 mV/DIV  
20  $\mu$ S/DIV  
TRIG: B.B (CH-4)



### 3-4-7. CHROMA DECODER CLOCK FREQUENCY Adjustment)

FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 75% Color Bars</li> <li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = OFF</li> <li>• Control panel setting: <ul style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 1</li> </ul> </li> </ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>• Oscilloscope CH-1: 20 mV/DIV 500 <math>\mu</math>S/DIV TRIG: B.B (CH-4)</li> </ul>	<p>A BUS: TP123/AD-76 (D8) B BUS: TP223/AD-76 (L8)</p> <p><b>NG</b></p>  <p><b>OK</b></p>  <ul style="list-style-type: none"> <li>• Adjust so that waveform becomes flat as possible.</li> </ul>	<p>A BUS: COLOR F LOCK adjustment ● CV101/AD-76 (C7)</p> <p>B BUS: COLOR F LOCK adjustment ● CV201/AD-76 (L7)</p>



### 3-4-8. Y/C CHROMA LEVEL Adjustment

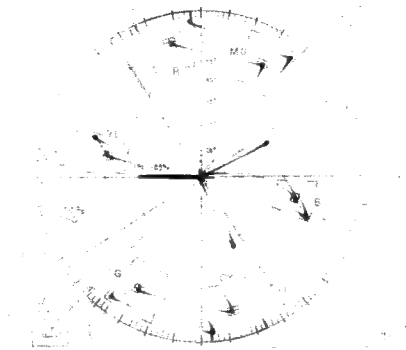

#### FOR UC

**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: Y/C (S), 75% Color Bars (100/7.5/77/7.5 Color Bars)</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                     When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li><li>5. The signal of A BUS is output at the top of the fader lever. The signal of B BUS is output at the bottom of the fader lever. Adjustment can be performed for each bus.</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



(3-4-8. Y/C CHROMA LEVEL Adjustment)

DR UC		
Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-2</p> <ul style="list-style-type: none"><li>Adjust to mechanical center. A BUS: RV114 B BUS: RV214</li><li>Adjust the phase of the chroma. A BUS: RV113 B BUS: RV213</li><li>Adjust in the vertical direction. A BUS: RV112 B BUS: RV212</li><li>Adjust in the horizontal direction. A BUS: RV115 B BUS: RV215</li></ul>	<p>PGM OUT (Y/C C or COMPOSITE)</p> <p>NG</p>  <p>OK</p>  <p>All luminance points should be inside the respective "田" mark on the vectorscope.</p> <ul style="list-style-type: none"><li>Adjust so that both the phase and the level A BUS and B BUS of become equal.</li></ul>	<p>A BUS:</p> <p>SEP C GAIN adjustment ● RV112/AD-76 (C7)</p> <p>CPST &amp; SEP HUE SET adjustment ● RV113/AD-76 (C7)</p> <p>SEP B-Y GAIN adjustment ● RV115/AD-76 (B10)</p> <p>B BUS:</p> <p>SEP C GAIN adjustment ● RV212/AF-76 (L10)</p> <p>CPST &amp; SEP HUE SET adjustment ● RV213/AD-76 (L7)</p> <p>SEP B-Y GAIN adjustment ● RV215/AD-76 (K10)</p>
<ul style="list-style-type: none"><li>Vectorscope L.DISP : VECT INPUT : CH-A FILTER: FLAT REF : EXT</li></ul>		



### (3-4-8. Y/C CHROMA LEVEL Adjustment)

#### FOR EK

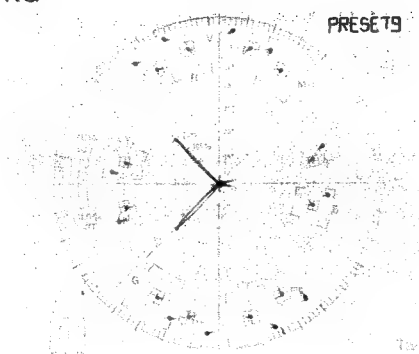
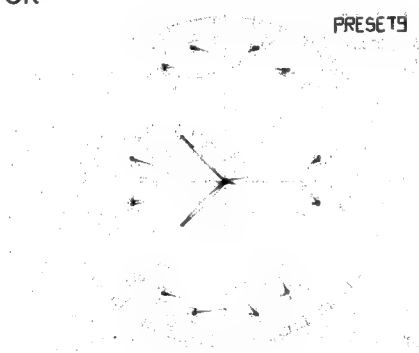
**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: Y/C (S), 75% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points When adjusting A BUS: TP141/AD-76 (D13) When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



### (3-4-8. Y/C CHROMA LEVEL Adjustment)

**OR EK**

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-2</b></p> <ul style="list-style-type: none"> <li>Adjust to mechanical center. A BUS: RV114 B BUS: RV214</li> <li>Adjust the phase of the chroma. A BUS: RV113 B BUS: RV213</li> <li>Adjust in the vertical direction. A BUS: RV112 B BUS: RV212</li> <li>Adjust in the horizontal direction. A BUS: RV115 B BUS: RV215</li> </ul>	<p>PGM OUT (Y/C C or COMPOSITE)</p> <p>NG</p>  <p>OK</p>  <p>All luminance points should be inside the respective “田” mark on the Vectorscope.</p> <ul style="list-style-type: none"> <li>Adjust so that both the phase and the level of A BUS and B BUS become equal.</li> </ul>	<p>A BUS:</p> <p>SEP C GAIN adjustment ⌚ RV112/AD-76 (C7) CPST &amp; SEP HUE SET adjustment ⌚ RV113/AD-76 (C7) SEP B-Y GAIN adjustment ⌚ RV115/AD-76 (B10)</p> <p>B BUS:</p> <p>SEP C GAIN adjustment ⌚ RV212/AF-76 (L10) CPST &amp; SEP HUE SET adjustment ⌚ RV213/AD-76 (L7) SEP B-Y GAIN adjustment ⌚ RV215/AD-76 (K10)</p>



### 3-4-9. Y/C INPUT Y/C DELAY Adjustment

#### FOR UC

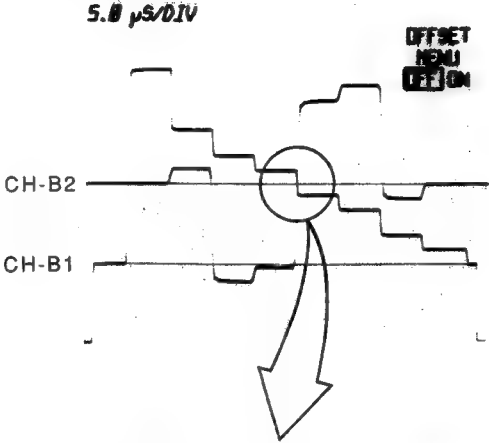
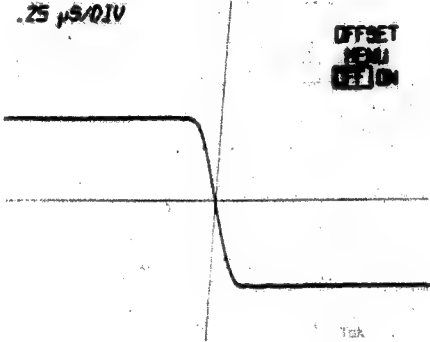


**NOTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specification	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars (100/7.5/77/7.5 Color Bars)</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2 After completing the above settings, check that the Y signal has been output. Test points      When adjusting A BUS: TP141/AD-76 (D13)                          When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button.</li></ol></li><li>4. FOREGROUND BUS = 1</li><li>5. The signal of A BUS is output at the top of the fader lever. The signal of B BUS is output at the bottom of the fader lever. Adjustment can be performed for each bus.</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



(3-4-9. Y/C INPUT Y/C DELAY Adjustment)

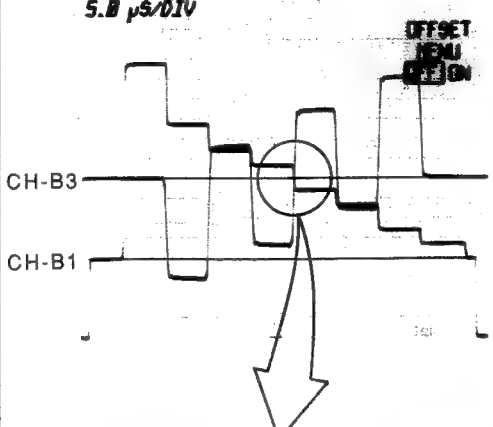
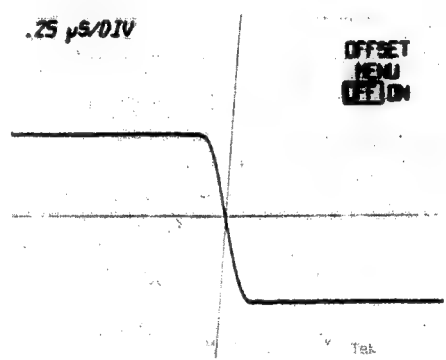


DR UC

Machine conditions for adjustment	Specification	Adjusting Point
<p>STEP-2</p> <p>Observe the fourth gradation of the component color bars (line between green and magenta) by enlarging the time axis.</p>	<p>CH-B1: PGM OUT (COMPONENT Y) CH-B2: PGM OUT (COMPONENT R-Y)</p> <p>5.0 <math>\mu</math>S/DIV</p>  <p>CH-B2</p> <p>CH-B1</p> <p>.25 <math>\mu</math>S/DIV</p>  <p>• Adjust so that the phases of the Y and R-Y signals have the same phase. (Adjust so that the line between green and magenta become equal.)</p>	<p>A BUS: Y/R-Y DL adjustment FL111/AD-76 (D9) Adjusting point: </p> <p>B BUS: Y/R-Y DL adjustment FL211/AD-76 (L9) Adjusting point: </p> <p><b>NOTE:</b> Do not touch adjusting points other than the above.</p>



(3-4-9. Y/C INPUT Y/C DELAY Adjustment)

FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-3</div> <div><ul style="list-style-type: none"><li>Observe the fourth gradation of the component color bars (line between green and magenta) by enlarging the time axis.</li></ul></div> <div><div><ul style="list-style-type: none"><li>Waveform monitor</li></ul></div><div>INPUT: CH-B1           (CHOMPONENT Y)           CH-B3           (CHOMPONENT B-Y)</div><div>MODE: OVERLAY REF : EXT</div></div>	<div>CH-B1: PGM OUT (COMPONENT Y) CH-B2: PGM OUT (COMPONENT B-Y)</div> <div><div>5.0 <math>\mu</math>S/DIV</div><div></div><div>CH-B3</div><div>CH-B1</div></div> <div><div>.25 <math>\mu</math>S/DIV</div><div></div><div>OFFSET MENU DEFIN</div></div> <div><ul style="list-style-type: none"><li>Adjust so that the phases of the Y and B-Y signals have the same phase. (Adjust so that the line between green and magenta become equal.)</li></ul></div>	<div>A BUS: Y/B-Y DL adjustment FL112/AD-76 (C9) Adjusting point: </div> <div>B BUS: Y/B-Y DL adjustment FL212/AD-76 (K9) Adjusting point: </div> <div><b>NOTE:</b> Do not touch adjusting points other than the above.</div>



### 3-4-9. Y/C INPUT Y/C DELAY Adjustment)

#### FOR EK

**OTE:** Perform this adjustment after completing all the adjustments for the DA-63 board.

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-1</p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars</li><li>• Switch setting: S1/AD-76 (D1) = Y/C S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points    When adjusting A BUS: TP141/AD-76 (D13)                     When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button.</li><li>4. FOREGROUND =1</li><li>5. The signal of A BUS is output at the top of the fader lever. The signal of B BUS is output at the bottom of the fader lever. Adjustment can be performed for each bus.</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



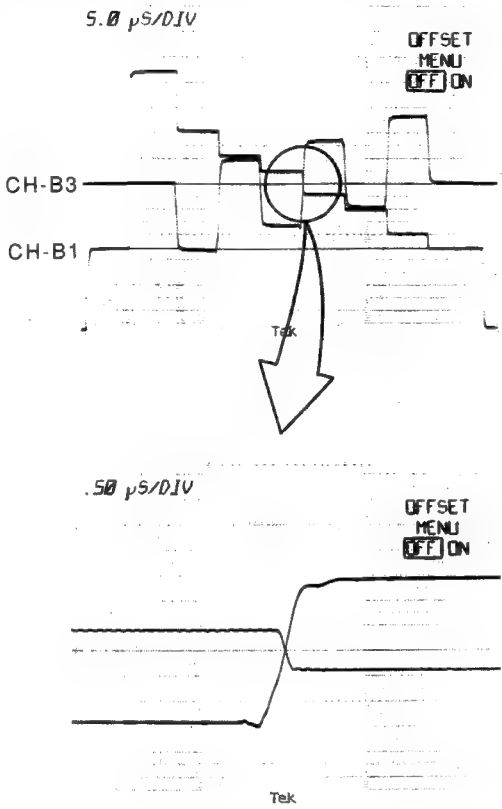


**FOR EK**

- Waveform monitor  
INPUT: CH-B1  
(COMPONENT Y)  
CH-B2  
(COMPONENT R-Y)  
MODE: OVERLAY  
REF : EXT



# (3-4-9. Y/C INPUT Y/C DELAY Adjustment)

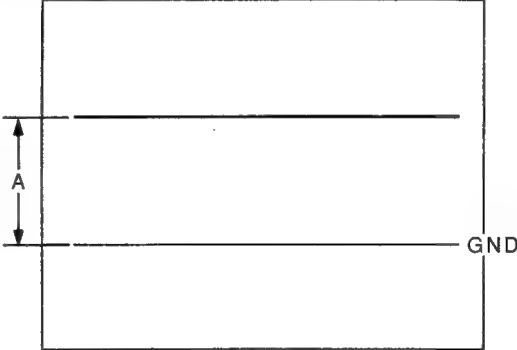
## FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-3</b></p> <ul style="list-style-type: none"> <li>Observe the fourth gradation of the component color bars (line between green and magenta) by enlarging the time axis.</li> </ul>	<p>CH-B1: PGM OUT (COMPONENT Y) CH-B3: PGM OUT (COMPONENT B-Y)</p>  <p>5.0 <math>\mu</math>S/DIV</p> <p>CH-B3</p> <p>CH-B1</p> <p>5.0 <math>\mu</math>S/DIV</p> <p>• Adjust so that the phases of the Y and B-Y signals have the same phase. (Adjust so that the line between green and magenta become equal.)</p>	<p>A BUS: Y/B-Y DL adjustment FL112/AD-76 (C9) Adjusting point: </p> <p>B BUS: Y/B-Y DL adjustment FL212/AD-76 (K9) Adjusting point: </p> <p><b>NOTE:</b> Do not touch adjusting points other than the above.</p>

- Waveform monitor  
INPUT: CH-B1  
(COMPONENT Y)  
CH-B3  
(COMPONENT B-Y)  
MODE: OVERLAY  
REF : EXT

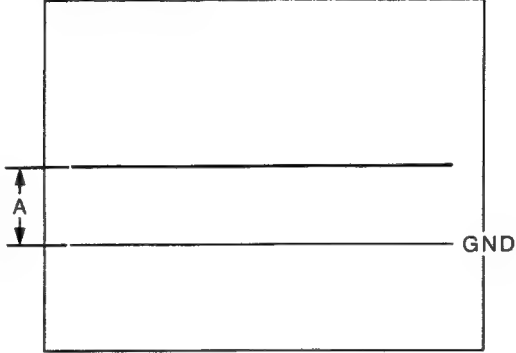


### 3-4-10. APC LOCK Adjustment

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 75% Color Bars</li> <li>• Switch setting: S1/AD-76 (D1) = COMPOSITE S3-2/SY-172 (L10) = ON (For UC) S3-2/SY-172 (L10) = OFF (For EK)</li> <li>• Control panel setting:               <ol style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 1</li> </ol> </li> </ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		
<p><b>STEP-2</b></p> <ul style="list-style-type: none"> <li>• Digital voltmeter</li> </ul>	<p>A BUS: TP116/AD-76 (G4) B BUS: TP216/AD-76 (H4)</p>  <p style="text-align: center;">A = 3.5 to 4.5 V dc</p> <ul style="list-style-type: none"> <li>• Turn A BUS: ⌚RV103 or B BUS: ⌚RV203 in the clockwise direction fully and check that the specification above is satisfied.</li> </ul>	<p>A BUS: APC LOCK adjustment ⌚ RV103/AD-76 (F4)</p> <p>B BUS: APC LOCK adjustment ⌚ RV203/AD-76 (H4)</p>



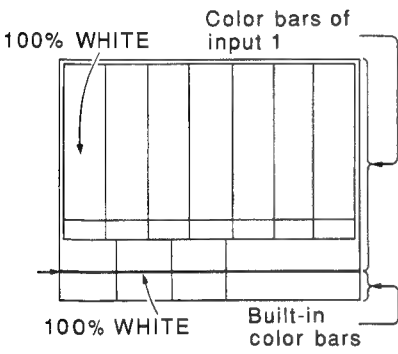
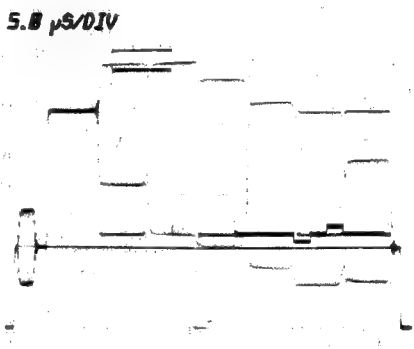
### 3-4-10. APC LOCK Adjustment)

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-3</b>  <ul style="list-style-type: none"> <li>Digital voltmeter</li> </ul>	A BUS: TP116/AD-76 (G4) B BUS: TP216/AD-76 (H4)    A = Approx. 2.2 V dc  <ul style="list-style-type: none"> <li>Turn A BUS: ⌚RV103 or B BUS: ⌚RV203 in the counterclockwise direction fully until the level is drawn into the vicinity of 2.2 V. (color lock condition)</li> </ul>	A BUS: APC LOCK adjustment ⌚RV103/AD-76 (F4)  B BUS: APC LOCK adjustment ⌚RV203/AD-76 (H4)
<b>STEP-4</b> <ul style="list-style-type: none"> <li>Disconnect the VIDEO IN BNC connector.</li> <li>Digital voltmeter</li> </ul>	A BUS: TP116/AD-76 (G4) B BUS: TP216/AD-76 (H4)  <ul style="list-style-type: none"> <li>Check that the level becomes approximately 0 V, re-connect the BNC connector of VIDEO IN1 and check that the level becomes approximately 2.2 V dc again.</li> </ul>	(Check)



### 3-4-11. COMPOSITE Y LEVEL Adjustment

#### FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-1</b></p> <ul style="list-style-type: none"> <li>• Connection: Section 3-2-2 Connection</li> <li>• Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>• Test signal: 75% Color Bars (100/7.5/77/7.5 Color Bars)</li> <li>• Switch setting: S1/AD-76 (D1) = COMPOSITE S3-2/SY-172 (L10) = ON</li> <li>• Control panel setting: <ul style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li> </ul> </li> </ul> <p>After completing the above settings, check that the Y signal has been output.  Test points When adjusting A BUS: TP141/AD-76 (D13)  When adjusting B BUS: TP241/AD-76 (J12)</p> <p>When the waveform is not displayed  Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</p> <ul style="list-style-type: none"> <li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li> </ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		
<p><b>STEP-2</b></p> <ul style="list-style-type: none"> <li>• Position of fader lever: Position at which 100% WHITE can be compared.</li> </ul>  <p>100% WHITE      Color bars of input 1</p> <p>100% WHITE      Built-in color bars</p> <ul style="list-style-type: none"> <li>• Waveform monitor INPUT: CH-A MODE: WFM REF : EXT</li> </ul>	<p>PGM OUT (COMPONENT Y or COMPOSITE)</p>  <p>5.8 <math>\mu</math>S/DIV</p> <ul style="list-style-type: none"> <li>• Adjust so that there is no difference between the color bars of input 1 and the built-in color bars.</li> </ul>	<p>A BUS: CPST Y GAIN adjustment  ● RV101/AD-76 (E2)</p> <p>B BUS: CPST Y GAIN adjustment  ● RV201/AD-76 (J2)</p>



### (3-4-11. COMPOSITE Y LEVEL Adjustment)

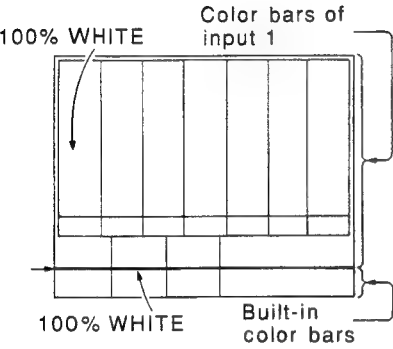
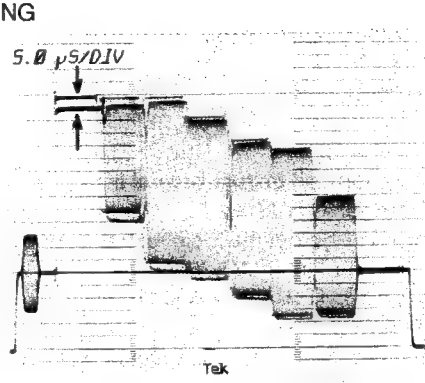
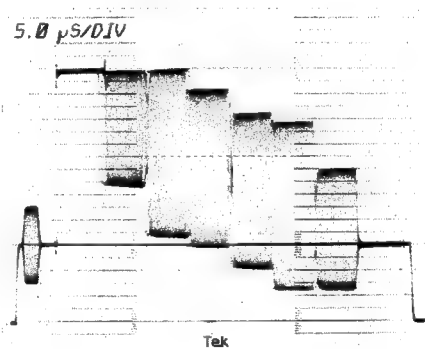
FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<p>STEP-1</p> <ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars (100/7.5/77/7.5 Color Bars)</li><li>• Switch setting: S1/AD-76 (D1) = COMPOSITE S3-2/SY-172 (L10) = OFF</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 2</li></ol>After completing the above settings, check that the Y signal has been output. Test points When adjusting A BUS: TP141/AD-76 (D13) When adjusting B BUS: TP241/AD-76 (J12) When the waveform is not displayed Press the AUTO TRANS button and check that the Y signal has been output at the test point of the adjusted bus.</li><li>4. FOREGROUND BUS = INT VIDEO (COL BAR)</li></ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		



### (3-4-11. COMPOSITE Y LEVEL Adjustment)

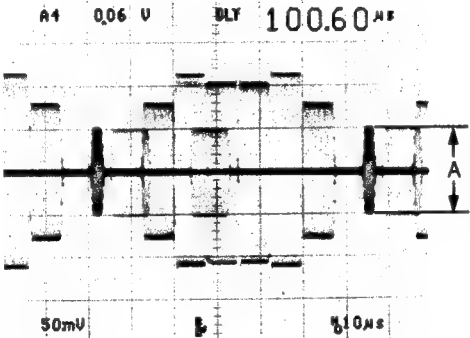
#### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<p><b>STEP-2</b></p> <ul style="list-style-type: none"> <li>Position of fader lever: Position at which 100% WHITE can be compared.</li> </ul>  <p>100% WHITE      Color bars of input 1</p> <p>100% WHITE      Built-in color bars</p> <ul style="list-style-type: none"> <li>Waveform monitor INPUT: CH-A MODE: WFM REF : EXT</li> </ul>	<p><b>PGM OUT (COMPONENT Y or COMPOSITE)</b></p> <p><b>NG</b></p>  <p><b>OK</b></p>  <ul style="list-style-type: none"> <li>Adjust so that there is no difference between the color bars of input 1 and the built-in color bars.</li> </ul>	<p><b>A BUS: CPST Y GAIN adjustment</b> ● RV101/AD-76 (E2)</p> <p><b>B BUS: CPST Y GAIN adjustment</b> ● RV201/AD-76 (J2)</p>



3-4-12. COMPOSITE CHROMA LEVEL Adjustment

FOR UC

Machine conditions for adjustment	Specifications	Adjusting Point
<div>STEP-1</div> <div><ul style="list-style-type: none"><li>• Connection: Section 3-2-2 Connection</li><li>• Extension board: Extend the AD-76 board with the EX-326 board.</li><li>• Test signal: 75% Color Bars (100/7.5/77/7.5 Color Bars)</li><li>• Switch setting: S1/AD-76 (D1) = COMPOSITE S3-2/SY-172 (L10) = ON</li><li>• Control panel setting:<ol style="list-style-type: none"><li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li><li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li><li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 1</li></ol></li></ul></div> <div>NOTE: Adjust A BUS and B BUS in the same way for each bus.</div>		
<div>STEP-2</div> <div><ul style="list-style-type: none"><li>• Oscilloscope CH-1: 50 mV/DIV 10 μS/DIV TRIG: B.B (CH-4)</li></ul></div>	<div>A BUS: TP122/AD-76 (B7) B BUS: TP222/AD-76 (K7)</div> <div></div> <div>A = 100 ± 5 mV p-p (A: Burst amplitude)</div>	<div>A BUS: CPST C GAIN adjustment ● RV102/AD-76 (E2)</div> <div>B BUS: CPST C GAIN adjustment ● RV202/AD-76 (H2)</div>



CHHRRRRR

CHHRRRRR

CHHRRRRR



#### 4-12. COMPOSITE CHROMA LEVEL Adjustment

##### FOR EK

Machine conditions for adjustment	Specifications	Adjusting Point
<b>STEP-1</b> <ul style="list-style-type: none"> <li>Connection: Section 3-2-2 Connection</li> <li>Extension board: Extend the AD-76 board with the EX-326 board.</li> <li>Test signal: 75% Color Bars</li> <li>Switch setting: S1/AD-76 (D1) = COMPOSITE S3-2/SY-172 (L10) = OFF</li> <li>Control panel setting: <ul style="list-style-type: none"> <li>1. PATTERN NUMBER = 4 (REVERSE = OFF)</li> <li>2. FADER LEVER = Move it fully to the top and bottom several times and set it at the top.</li> <li>3. BACKGROUND BUS = 1, FOREGROUND BUS = 1</li> </ul> </li> </ul> <p><b>NOTE:</b> Adjust A BUS and B BUS in the same way for each bus.</p>		
<b>STEP-2</b> <ul style="list-style-type: none"> <li>Oscilloscope</li> <li>CH-1: 50 mV/DIV</li> <li>10 <math>\mu</math>S/DIV</li> <li>TRIG: B.B (CH-4)</li> </ul>	A BUS: TP122/AD-76 (B7) B BUS: TP222/AD-76 (K7) <div data-bbox="517 887 991 1229" data-label="Figure"> </div> <p><math>A = 100 \pm 5 \text{ mV p-p}</math> (A: Burst amplitude)</p>	A BUS: CPST C GAIN adjustment ● RV102/AD-76 (E2)  B BUS: CPST C GAIN adjustment ● RV202/AD-76 (H2)



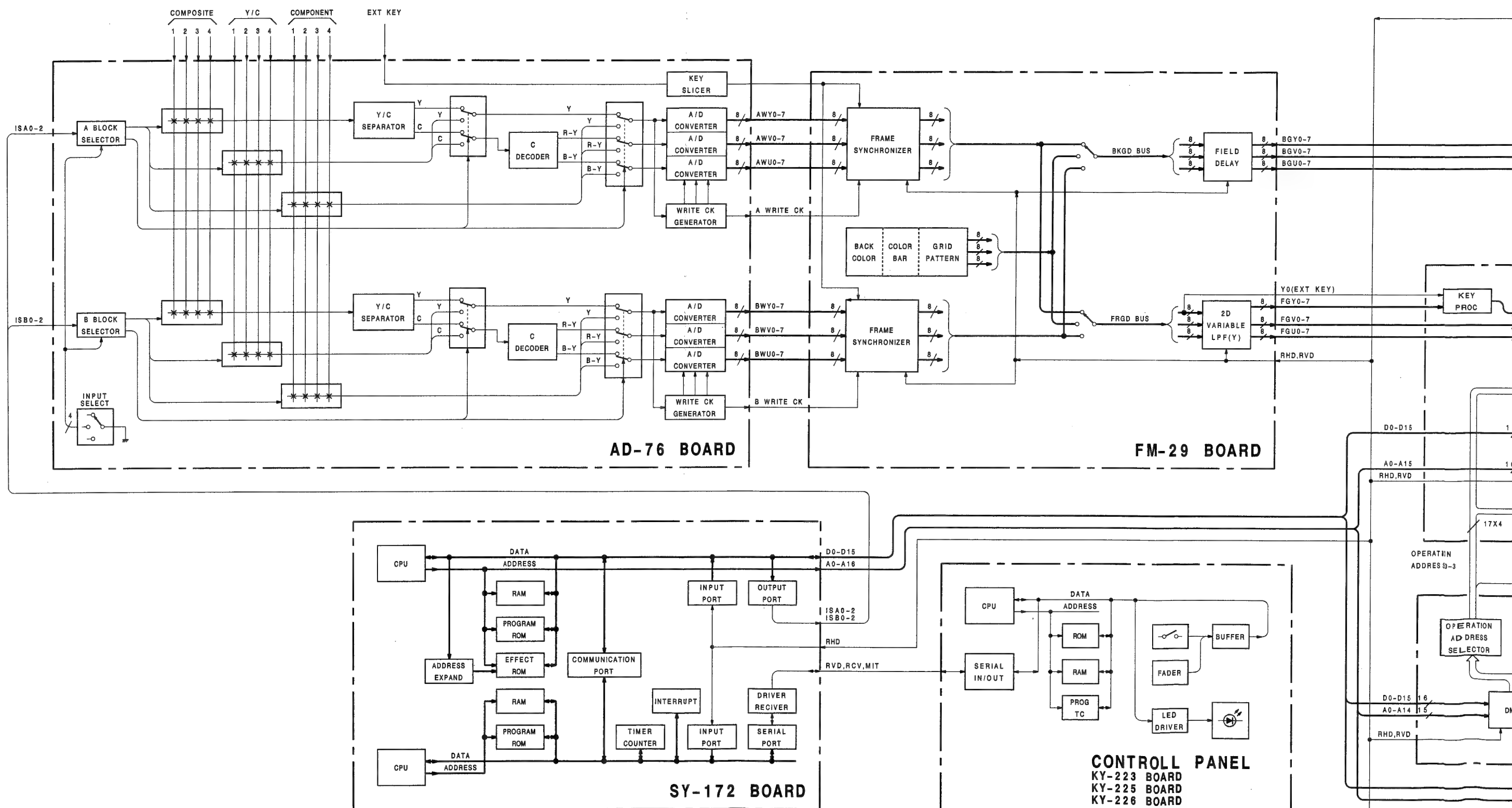
**FOR EK**

- Oscilloscope  
CH-1: 50 mV/DIV  
10  $\mu$ S/DIV  
TRIG: B.B (CH-4)



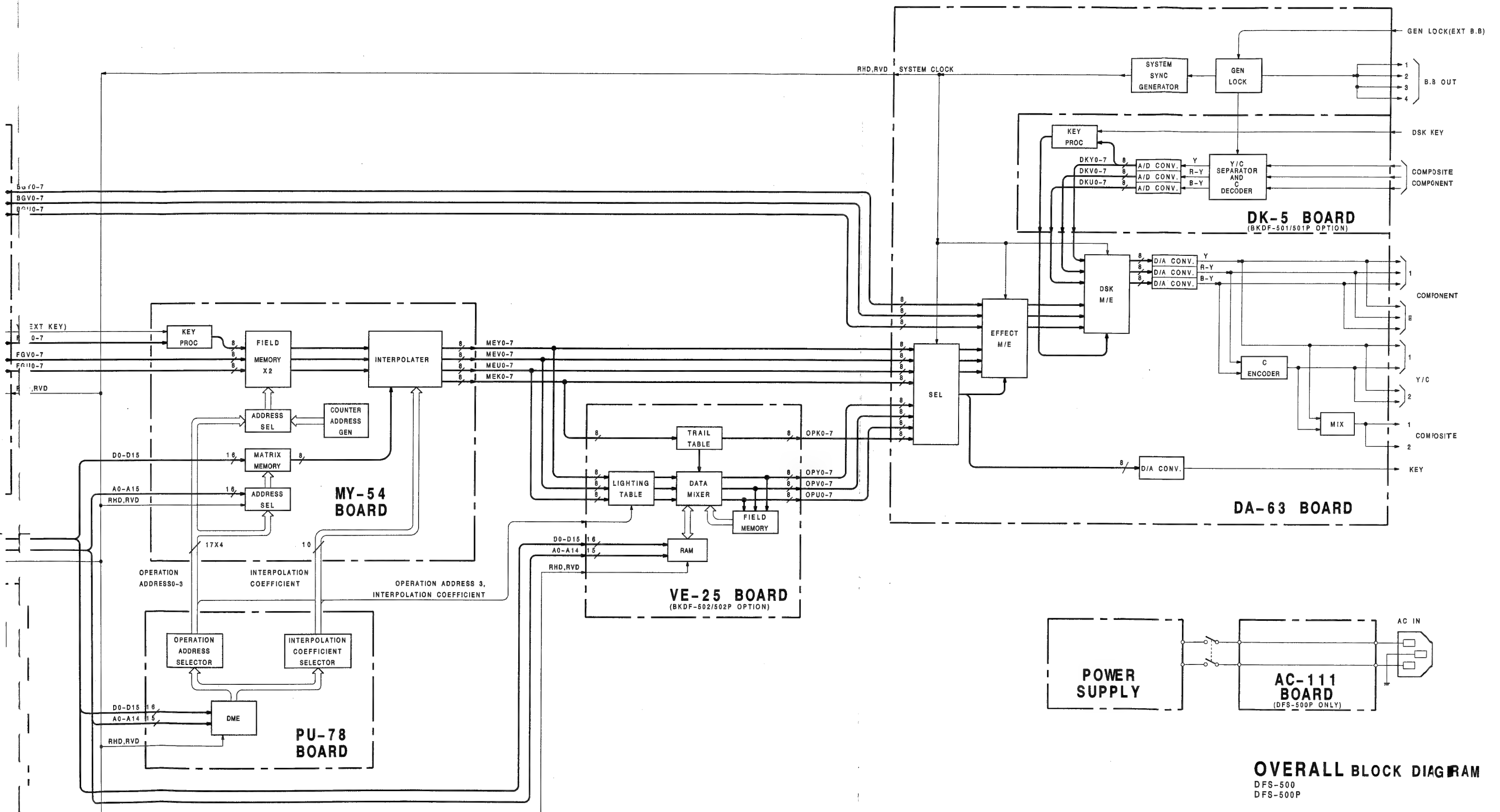
OVERALL

SECTION 4  
BLOCK DIAGRAMS





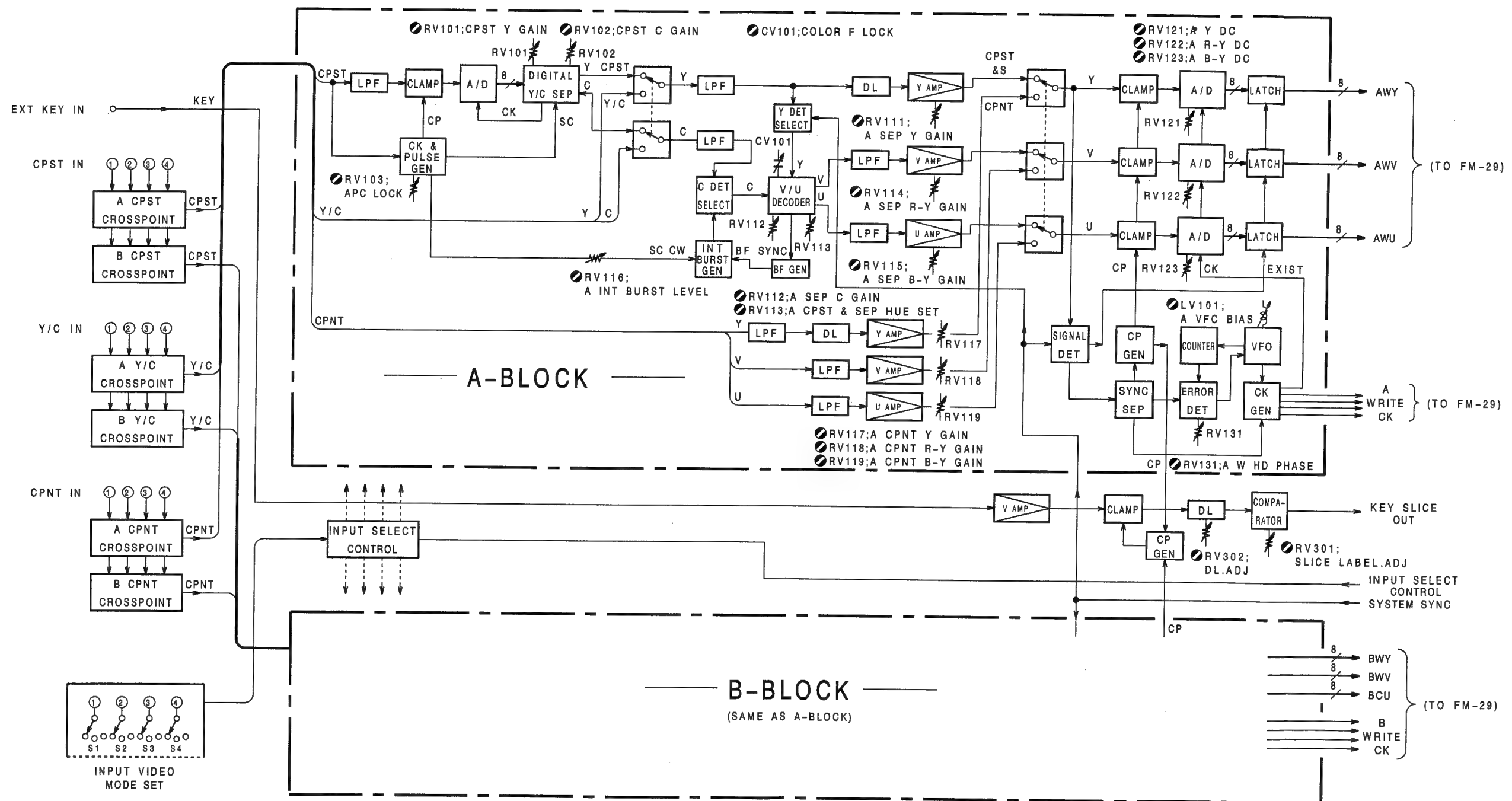
# BLOCK DIAGRAM OVERALL OVERALL BLOCK DIAGRAM





# BLOCK DIAGRAM AD-76 AD-76 BLOCK DIAGRAM

## AD-76;A/D Converter



**AD-76 BLOCK DIAGRAM**  
DFS-500  
DFS-500P



(TO FM-29)

(TO FM-29)

SL E  
UT

J  
T S .ECT  
ONT JL  
EM SYNC

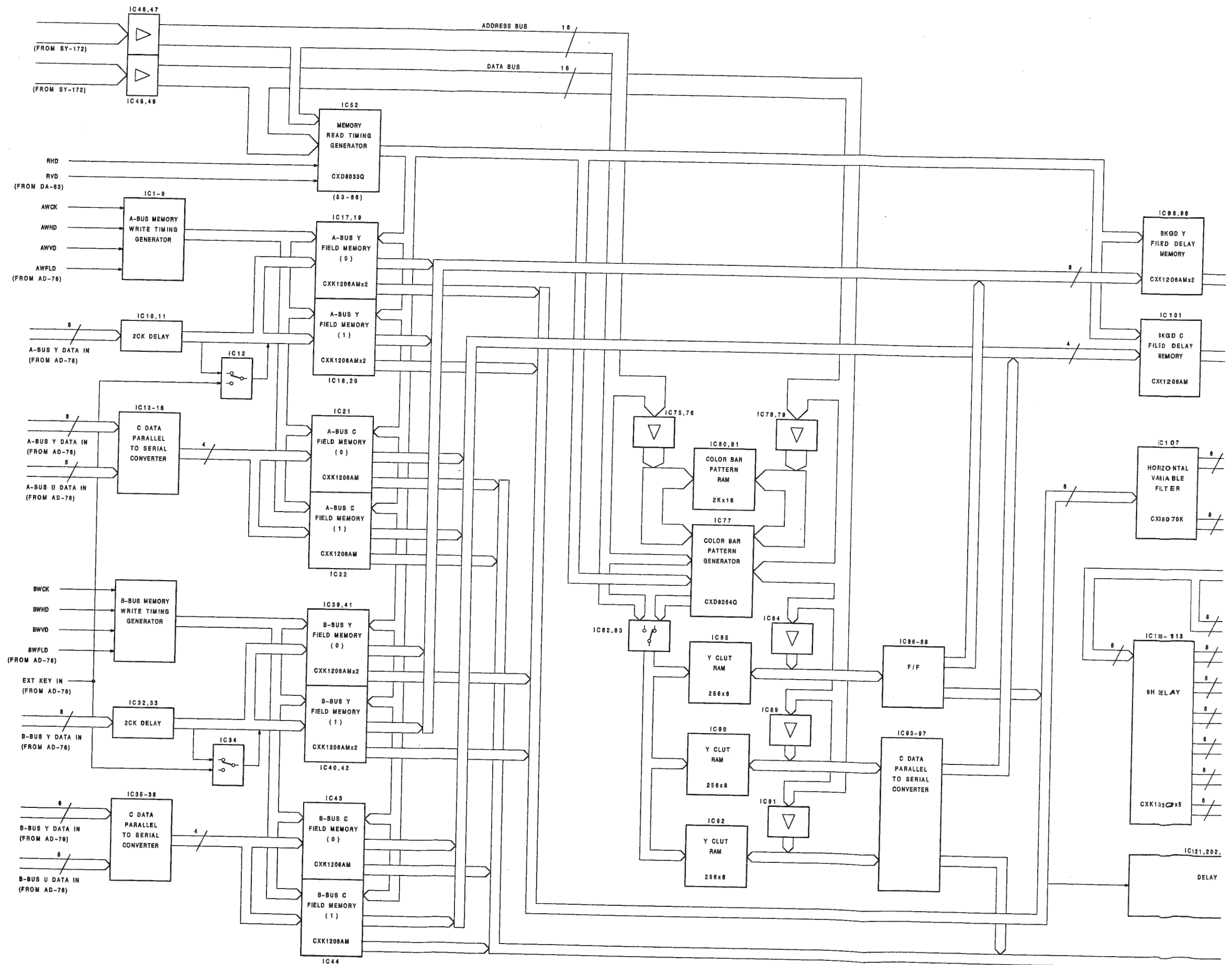
TO FM-29)

DIAGRAM



# BLOCK DIAGRAM FM-29 FM-29 BLOCK DIAGRAM

## FM-29;Frame Synchronizer

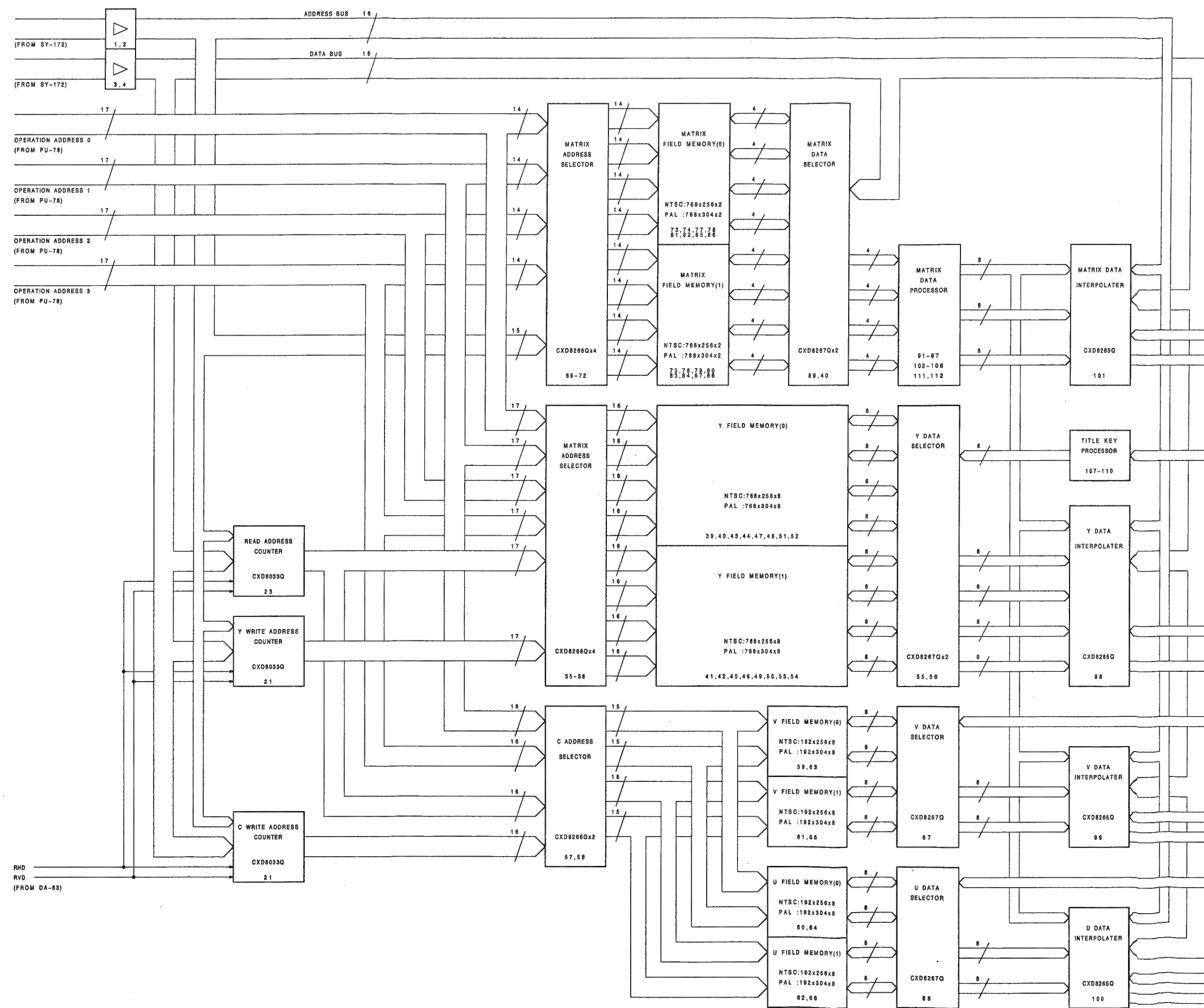






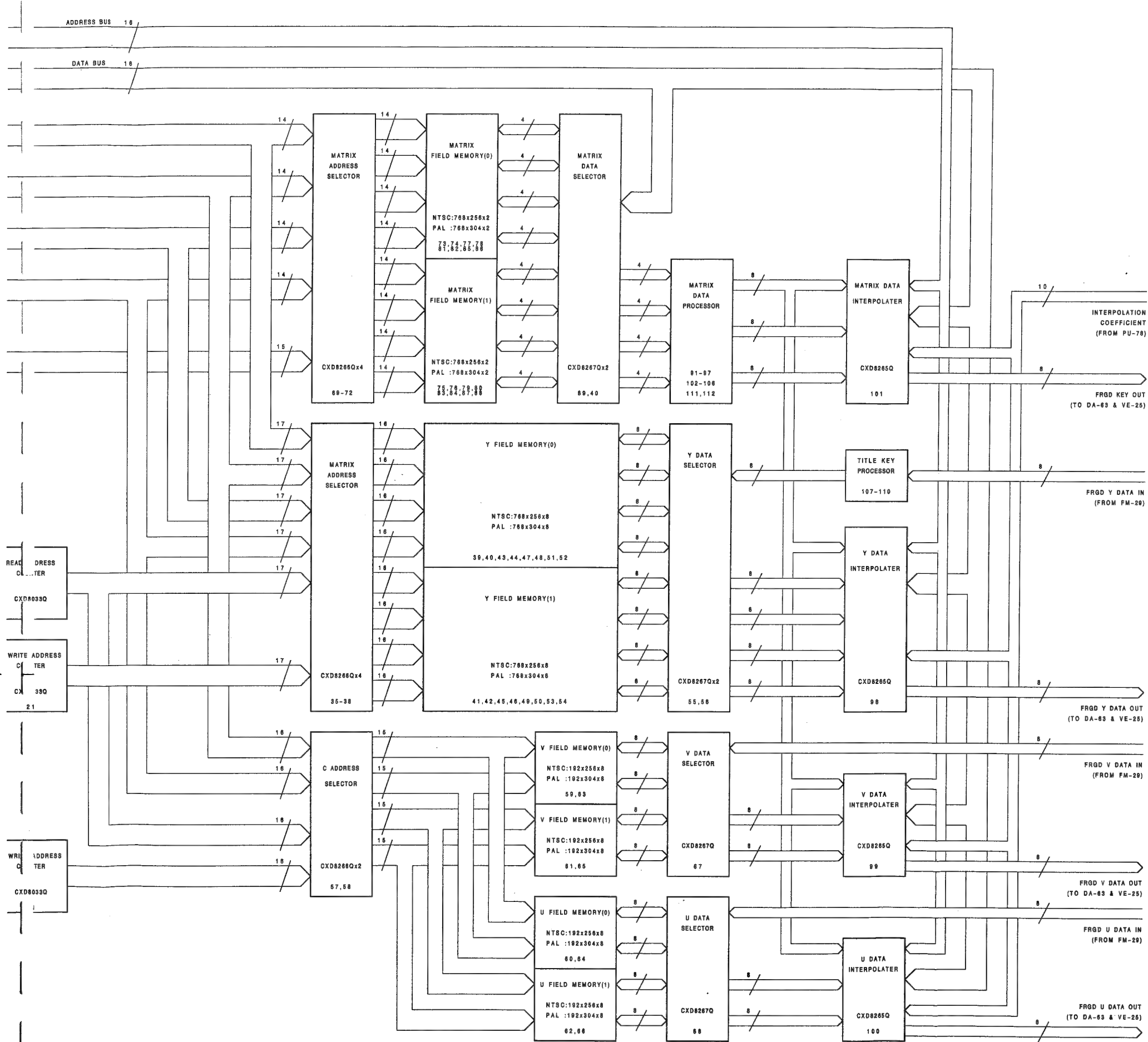


## MY-54;Field Memory





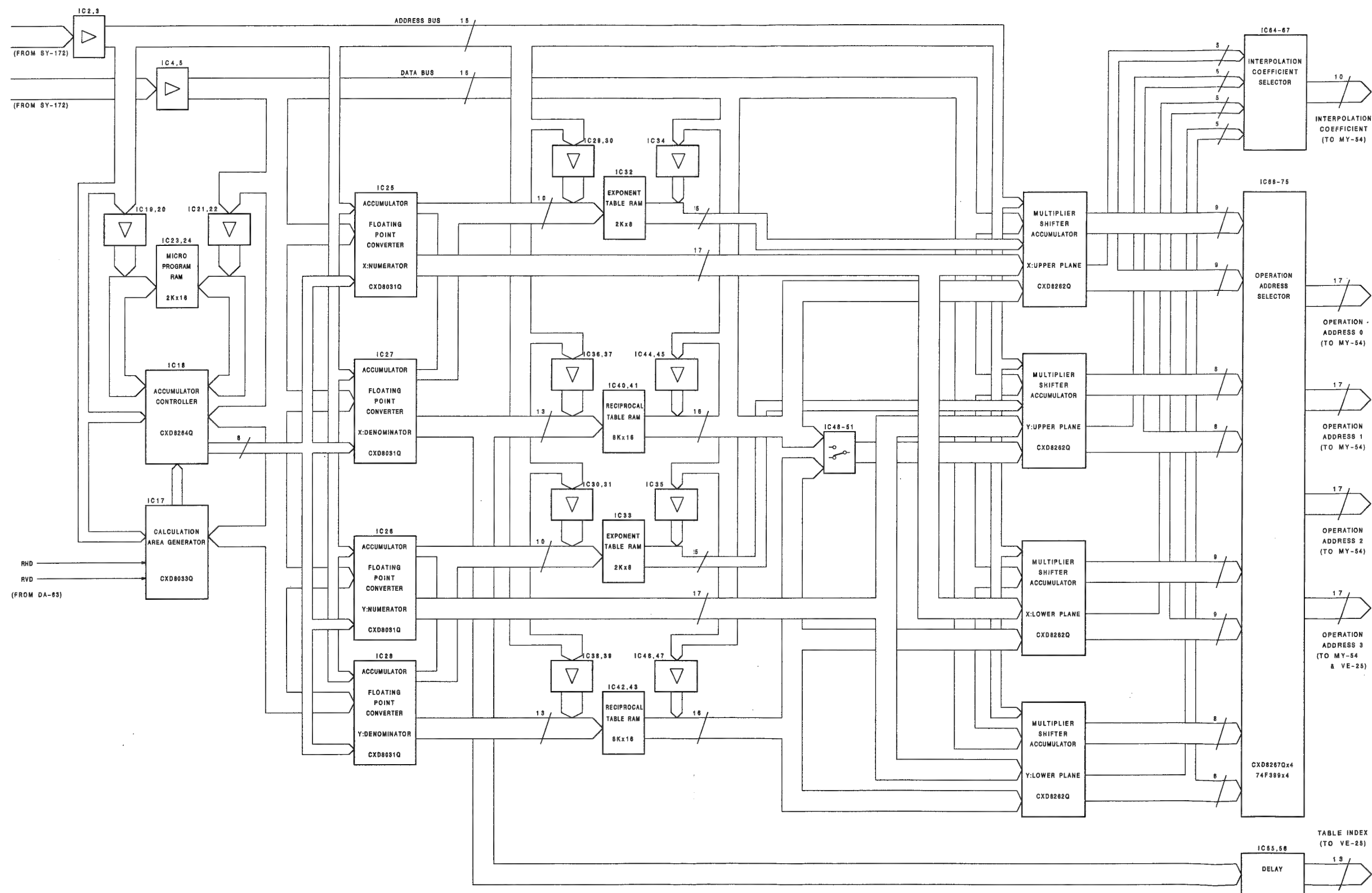
# BLOCK DIAGRAM MY-54 MY-54 BLOCK DIAGRAM





# BLOCK DIAGRAM PU-78 PU-78 BLOCK DIAGRAM

## PU-78;Address Operation

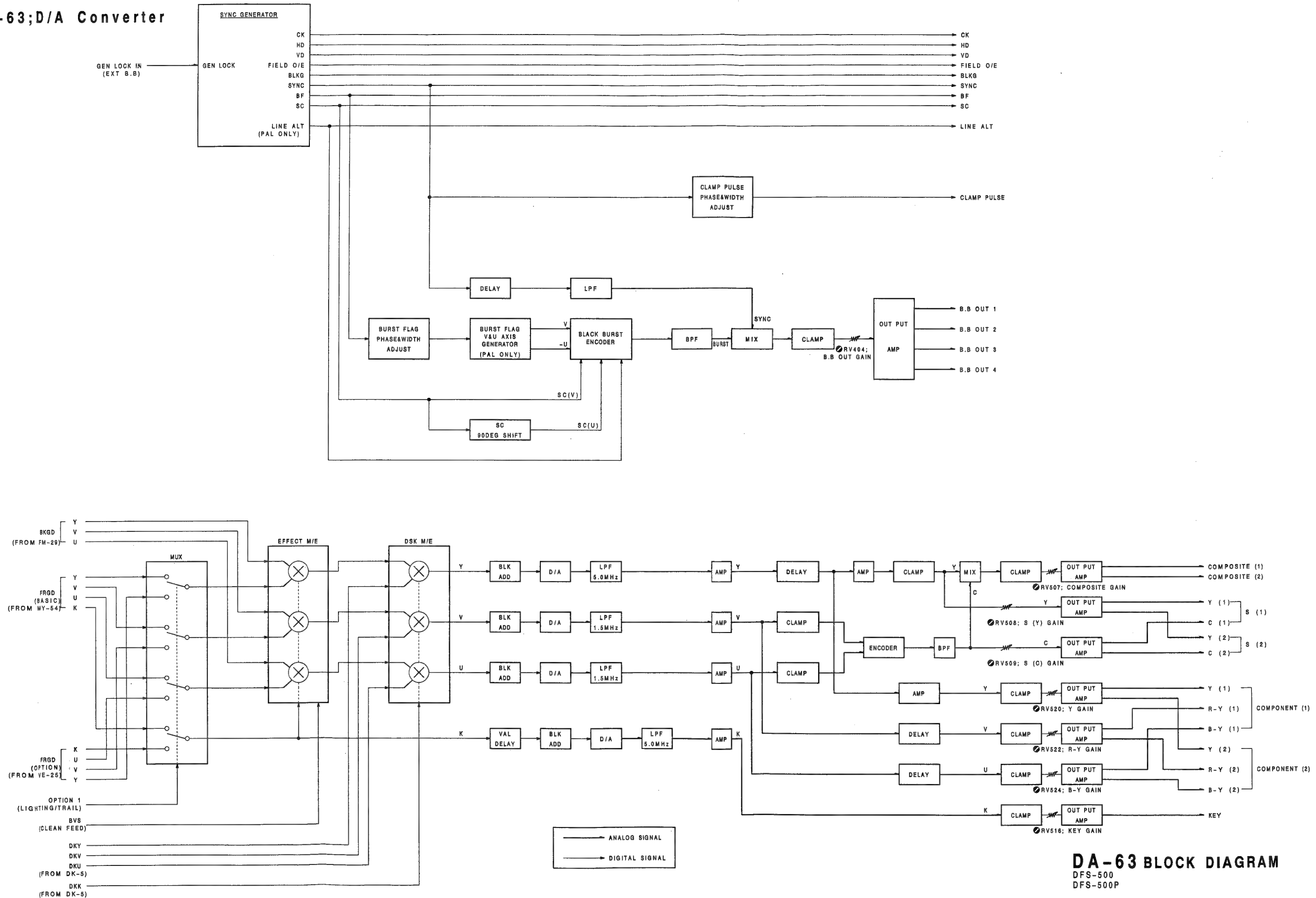


**PU-78 BLOCK DIAGRAM**  
DFS-500  
DFS-500P



# BLOCK DIAGRAM DA-63 DA-63 BLOCK DIAGRAM

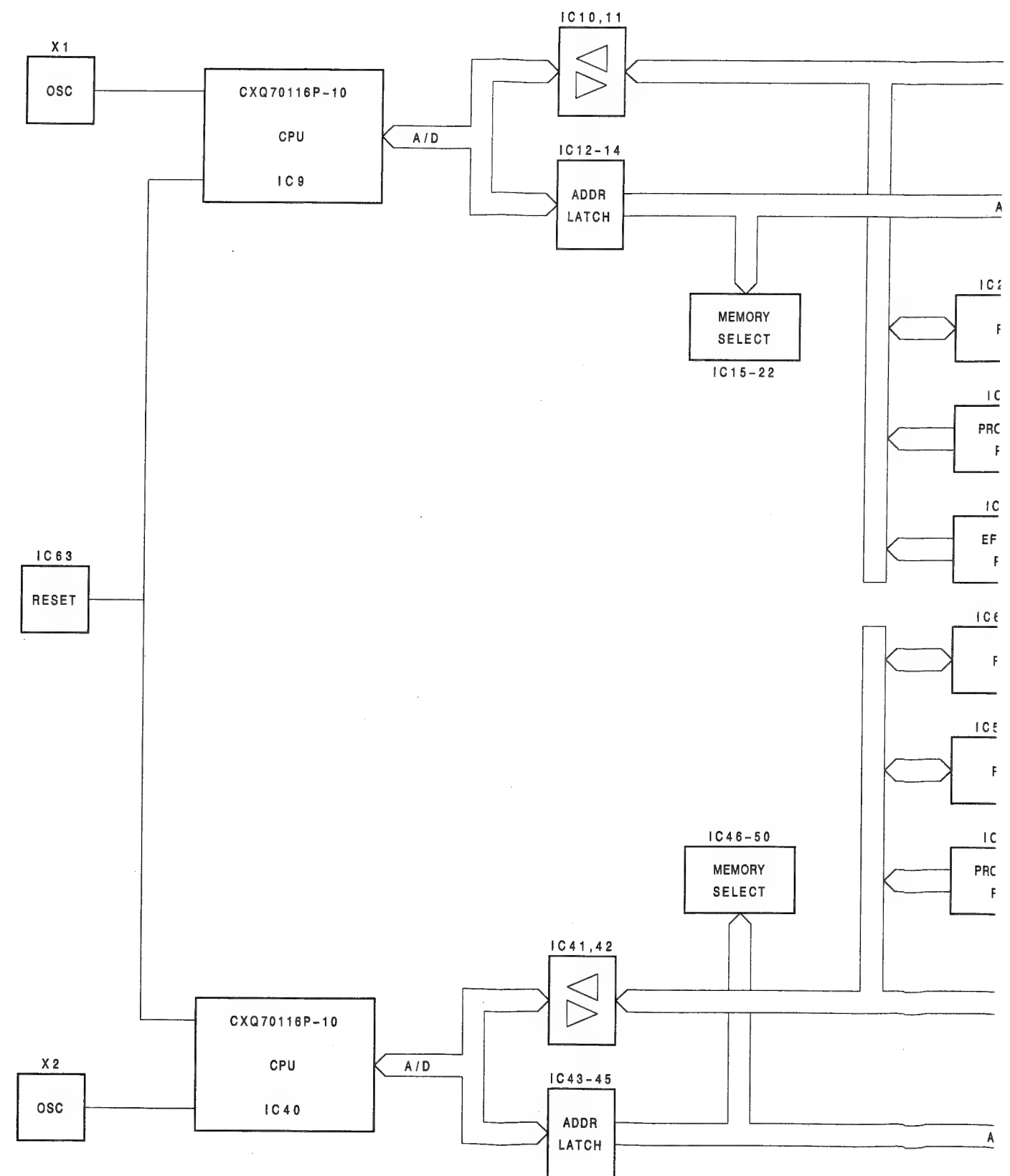
## DA-63;D/A Converter



**DA-63 BLOCK DIAGRAM**  
DFS-500  
DFS-500P

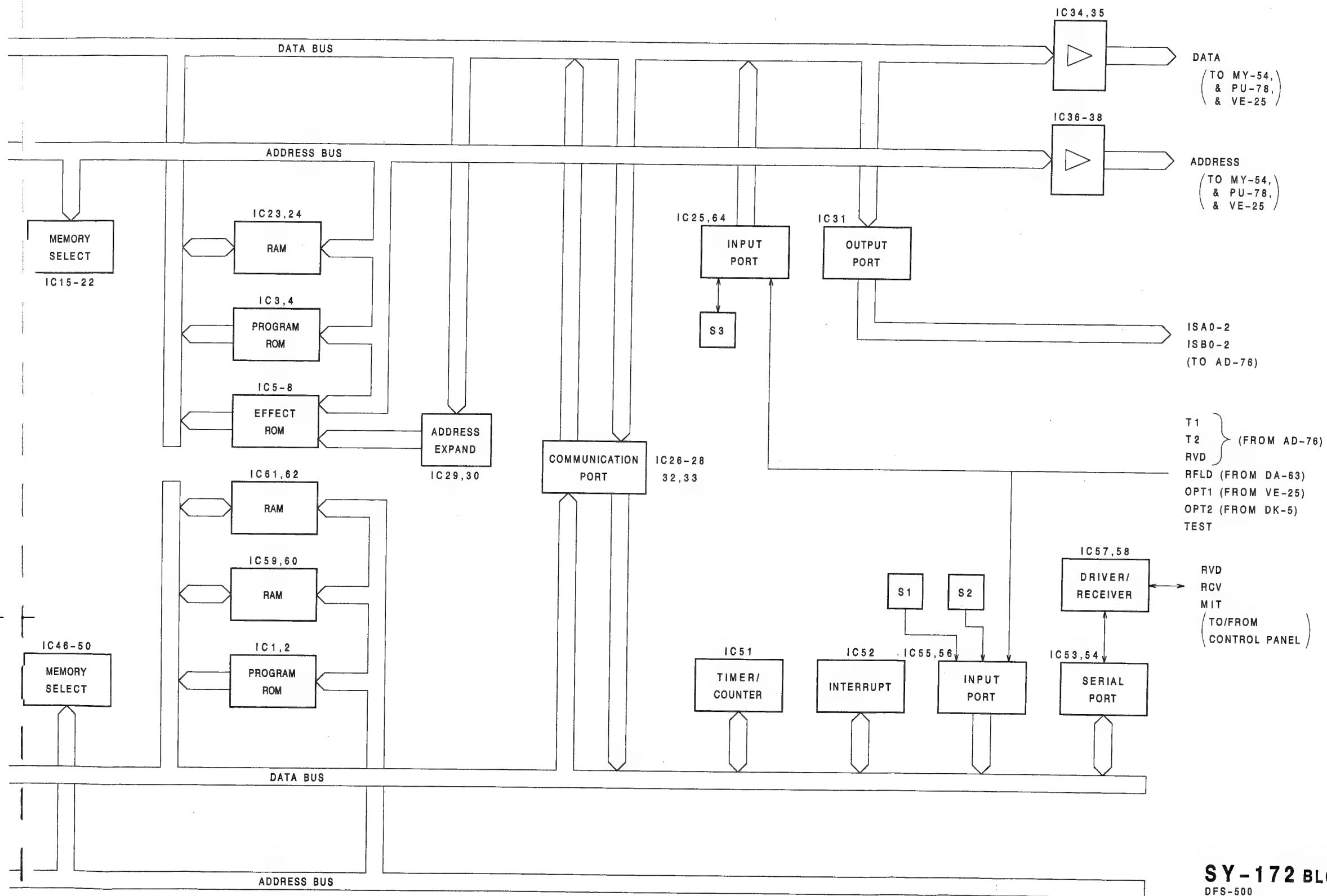


## SY-172; System Control





BLOCK DIAGRAM SY-172 SY-172 BLOCK DIAGRAM

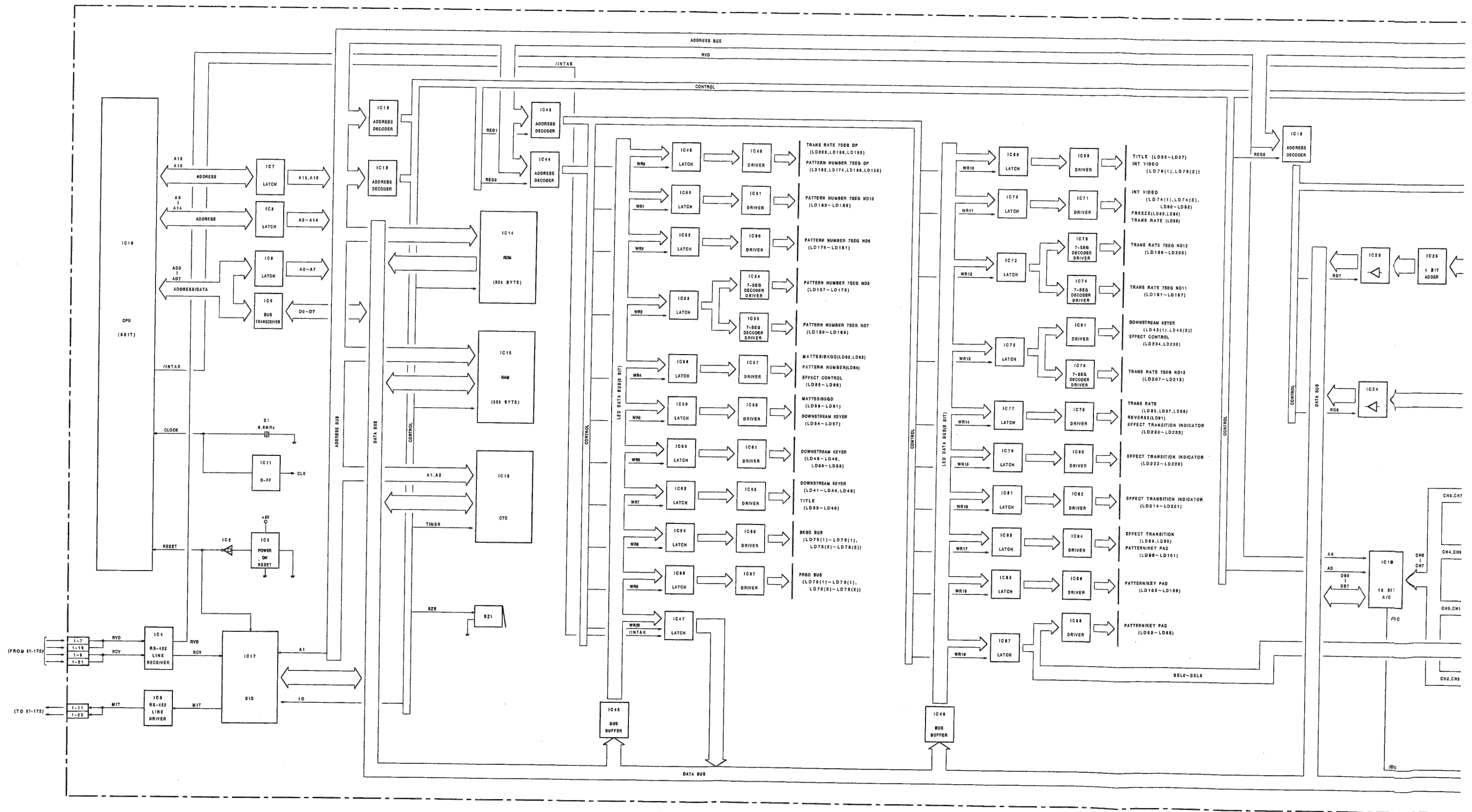


**SY-172 BLOCK DIAGRAM**  
DFS-500  
DFS-500P



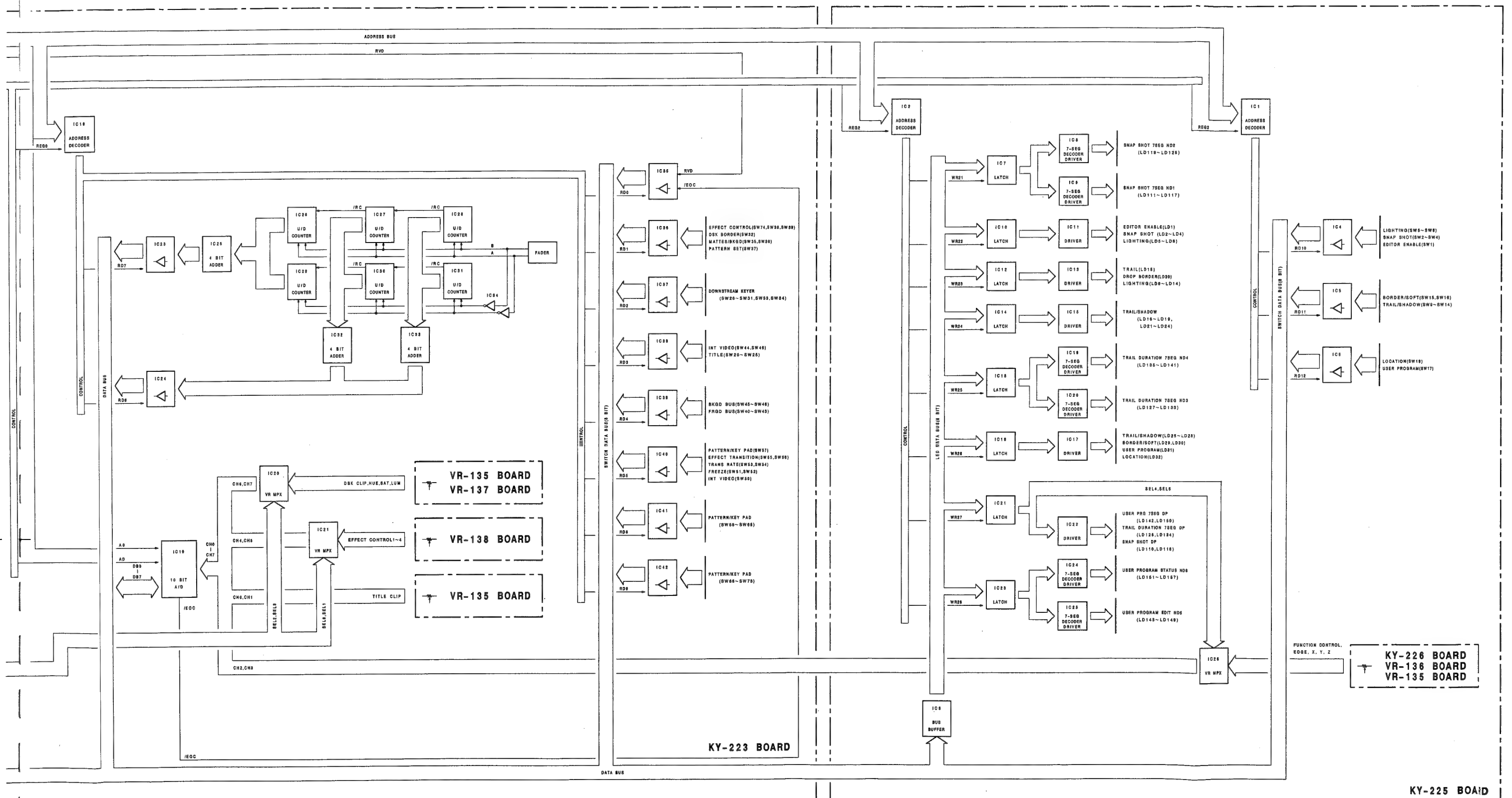
# BLOCK DIAGRAM CONTROL PANEL CONTROL PANEL BLOCK DIAGRAM

## CONTROL PANEL





# BLOCK DIAGRAM CONTROL PANEL CONTROL PANEL BLOCK DIAGRAM



**CONTROL PANEL BLOCK DIAGRAM**  
DFS-500  
DFS-500P



## SECTION 5

### SCHEMATIC DIAGRAMS

Board	Function	Page
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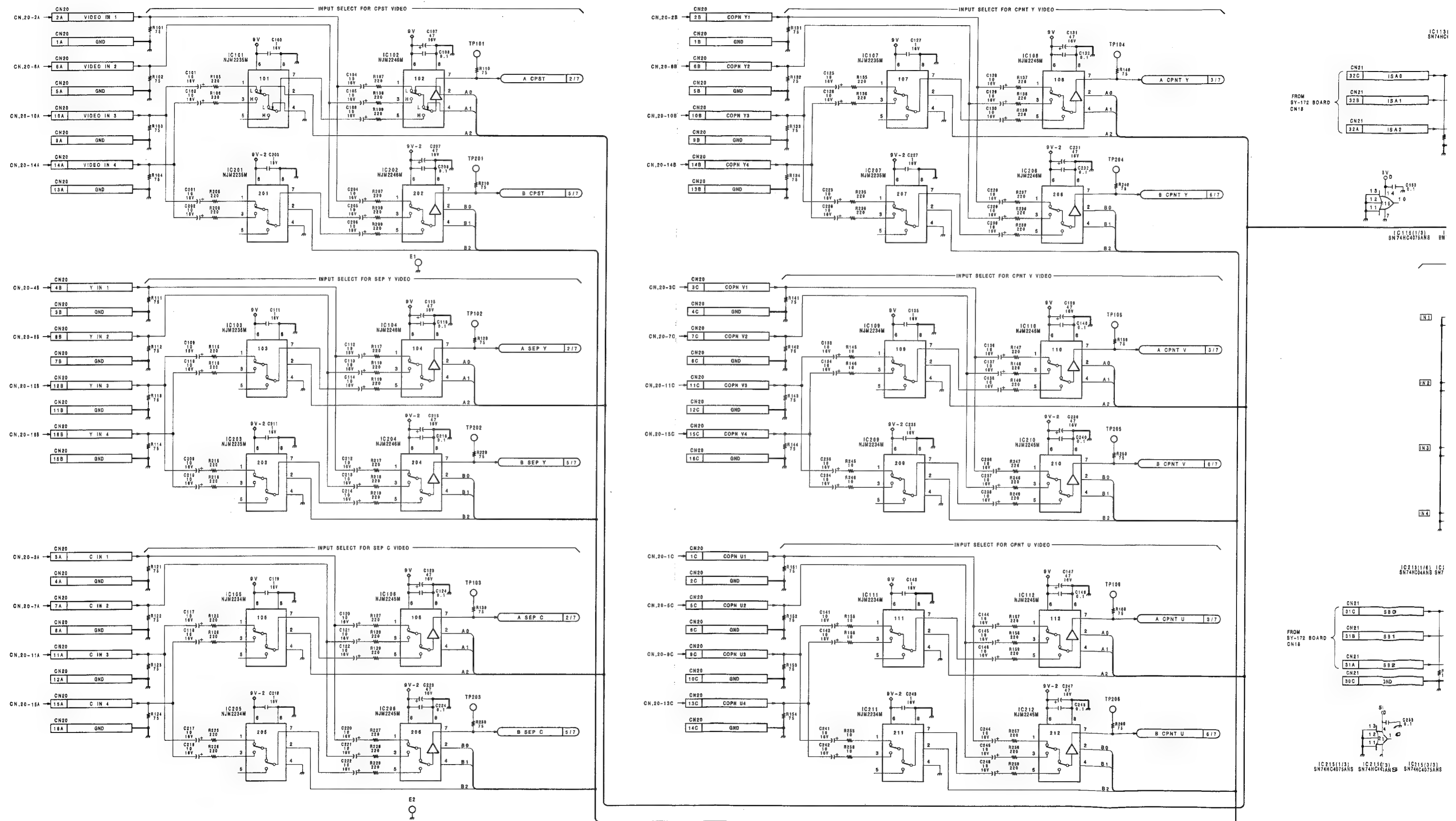
注意1; ⚠ 印のついた部品は安全性を維持するために重要な部品です。  
従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The ⚠ -marked components are critical to safety.  
Replace only with same components as specified.

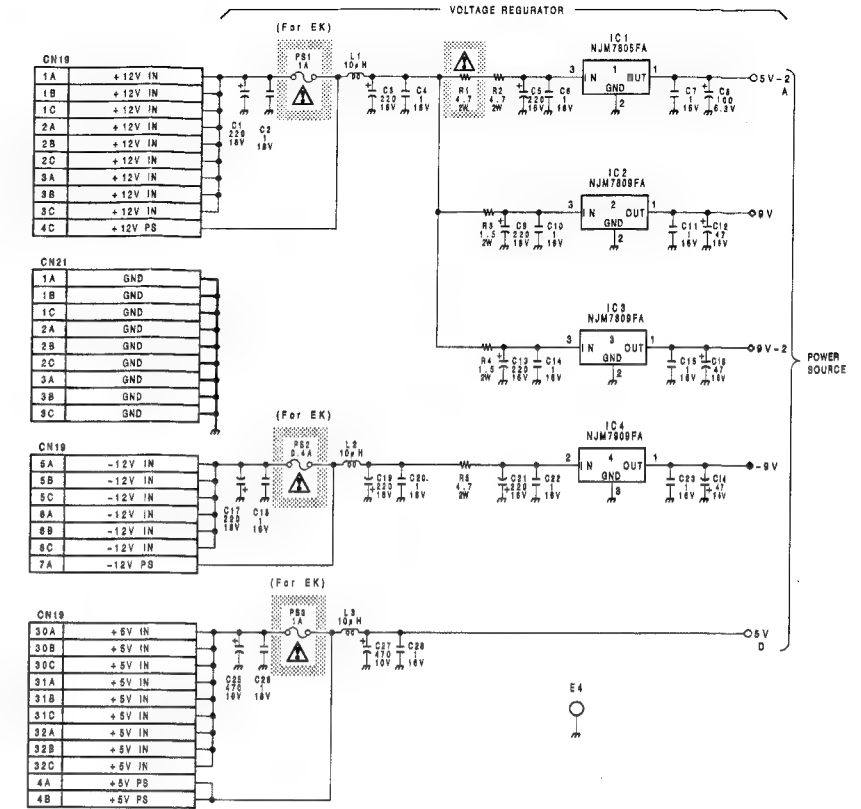
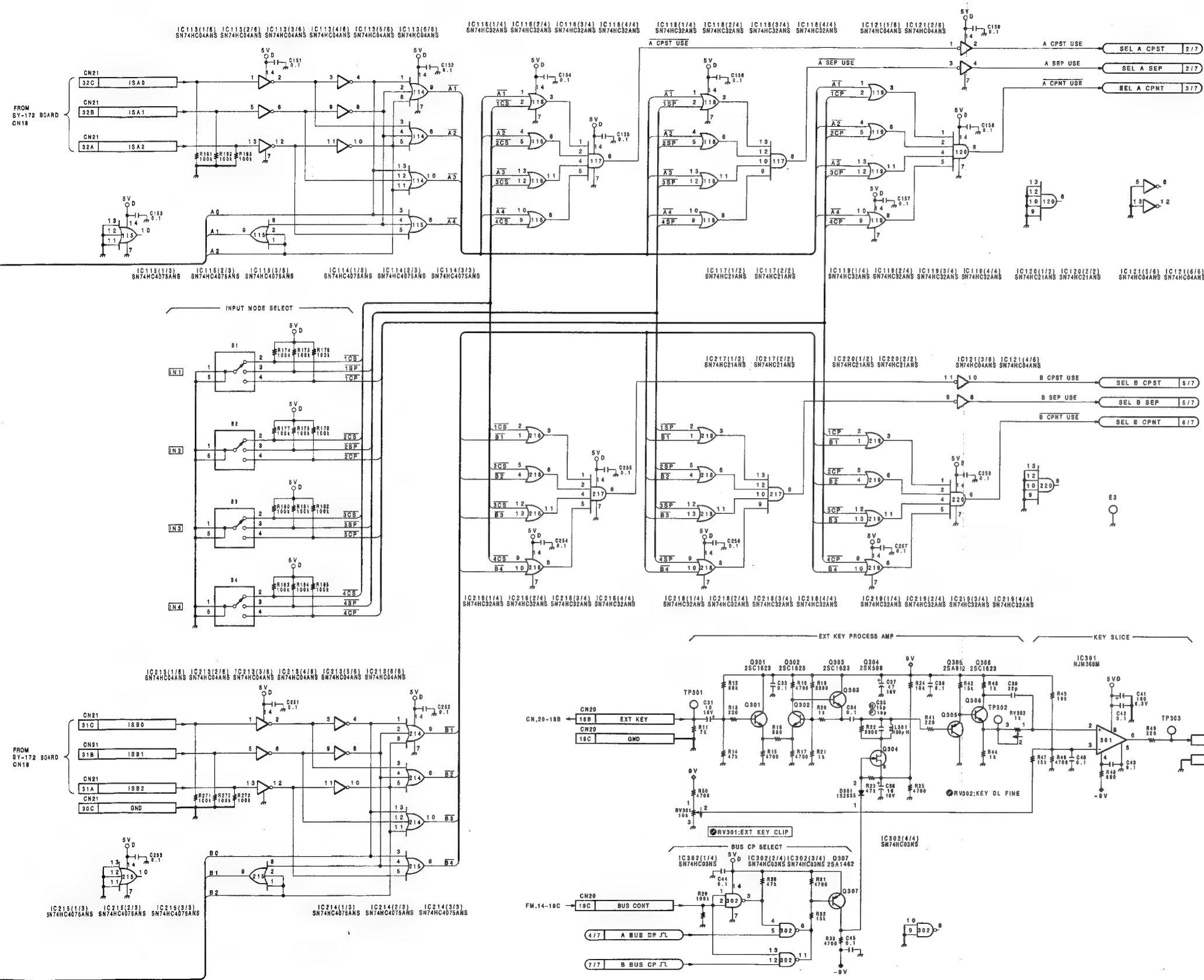


AD-76(1/7); Input Crosspoint, Title Key Process, Voltage REG.





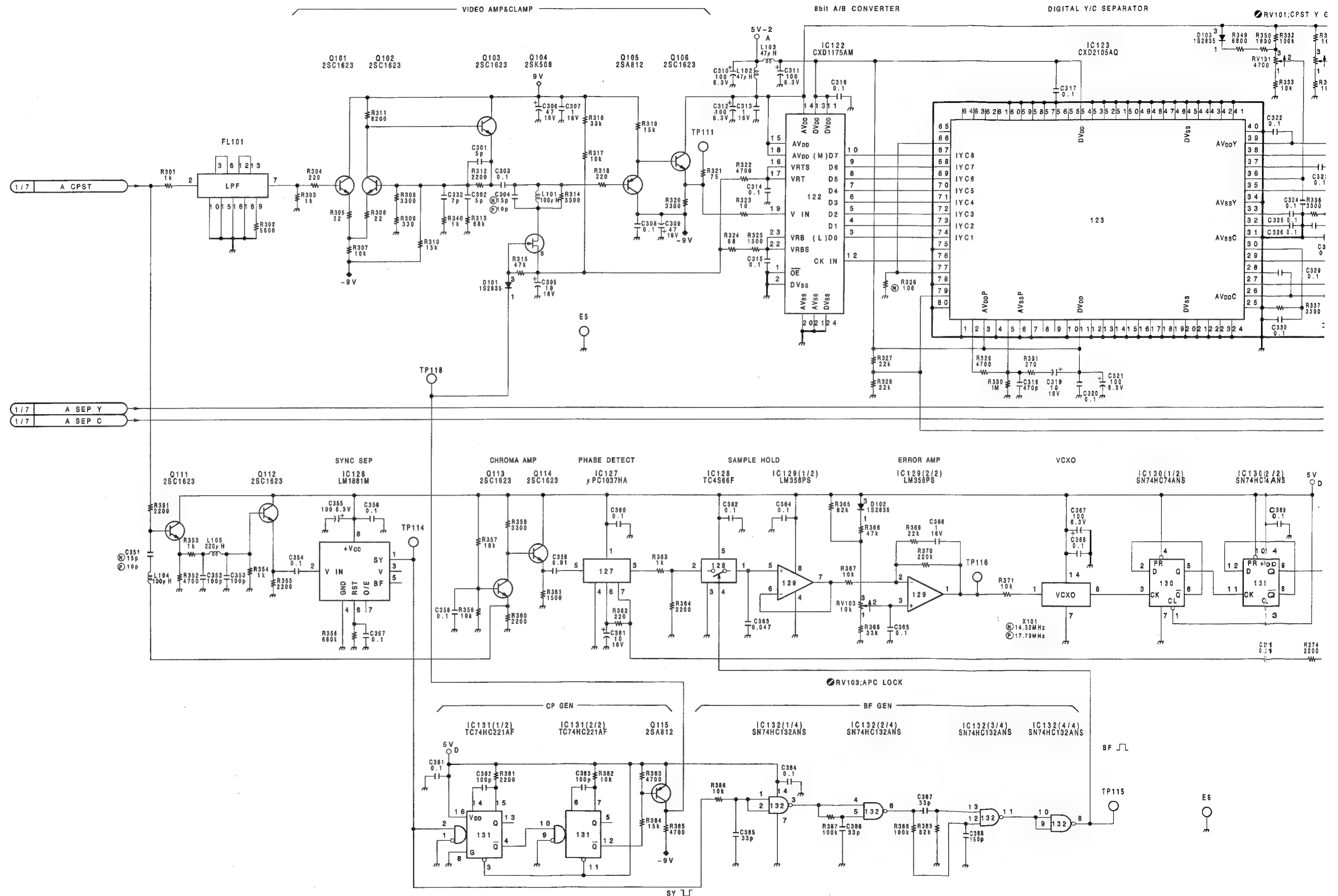
PROCESS UNIT AD-76(1/7)      AD-76(1/7) PROCESS UNIT



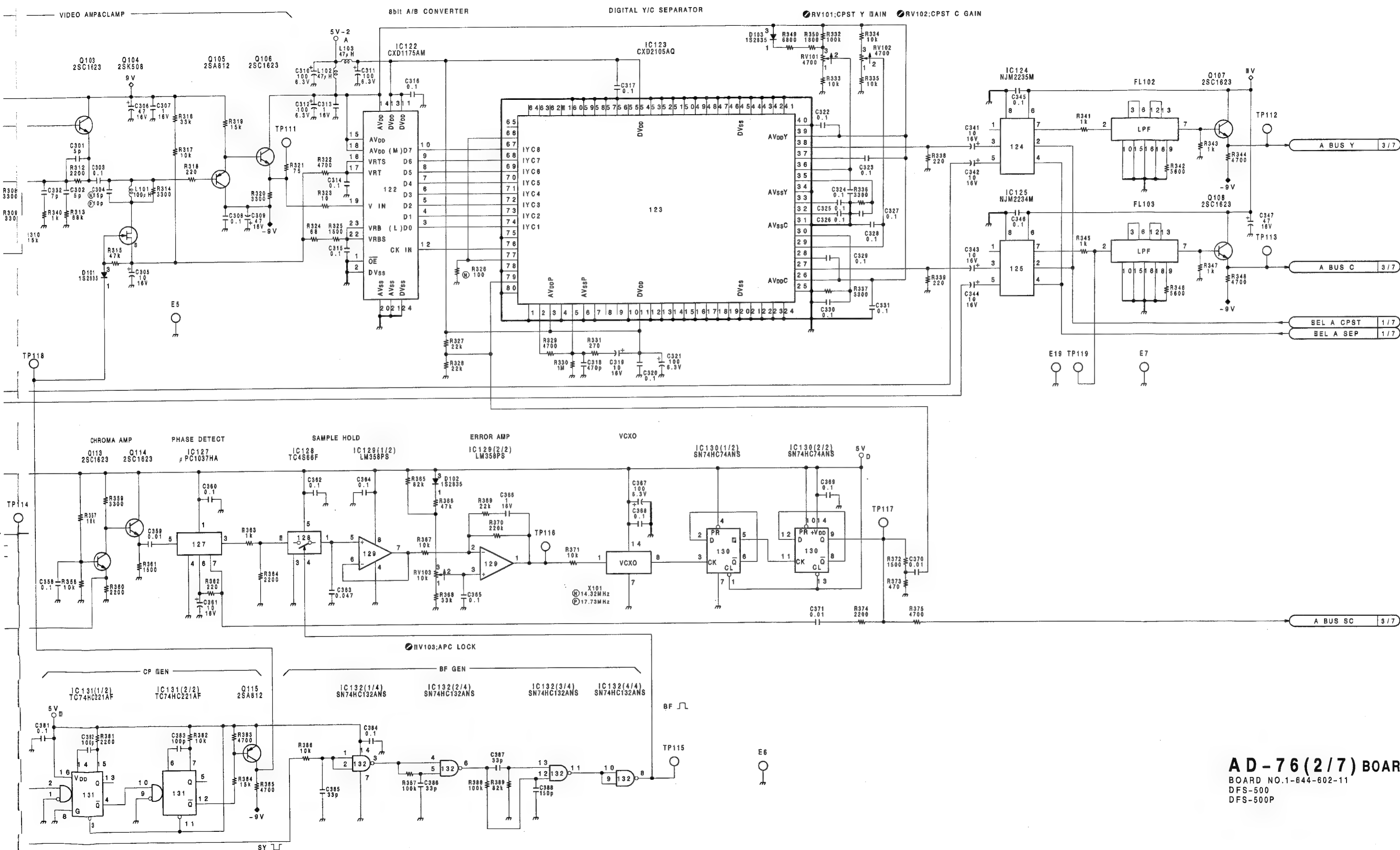
**AD-76(1/7) BOARD**  
BOARD NO.1-644-602-11  
DFS-500  
DFS-500P



## AD-76(2/7);A Y/C Separator &amp; Clock Generator



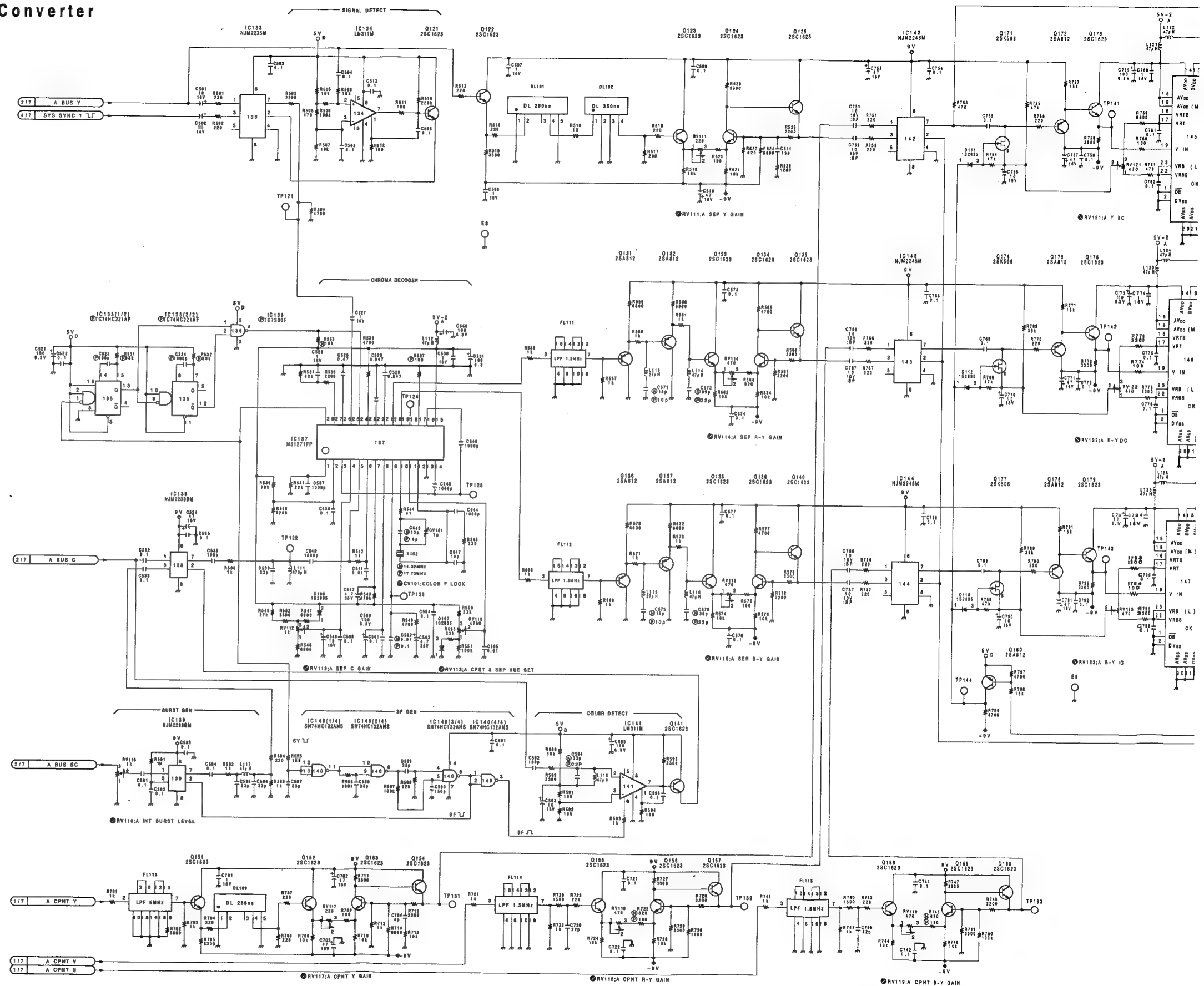




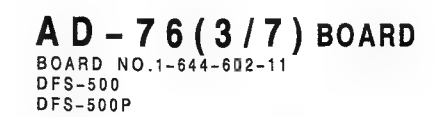
**AD-76(2/7) BOARD**  
BOARD NO.1-644-602-11  
DFS-500  
DFS-500P



AD-76(3/7);A Chroma Decoder & A/D Converter

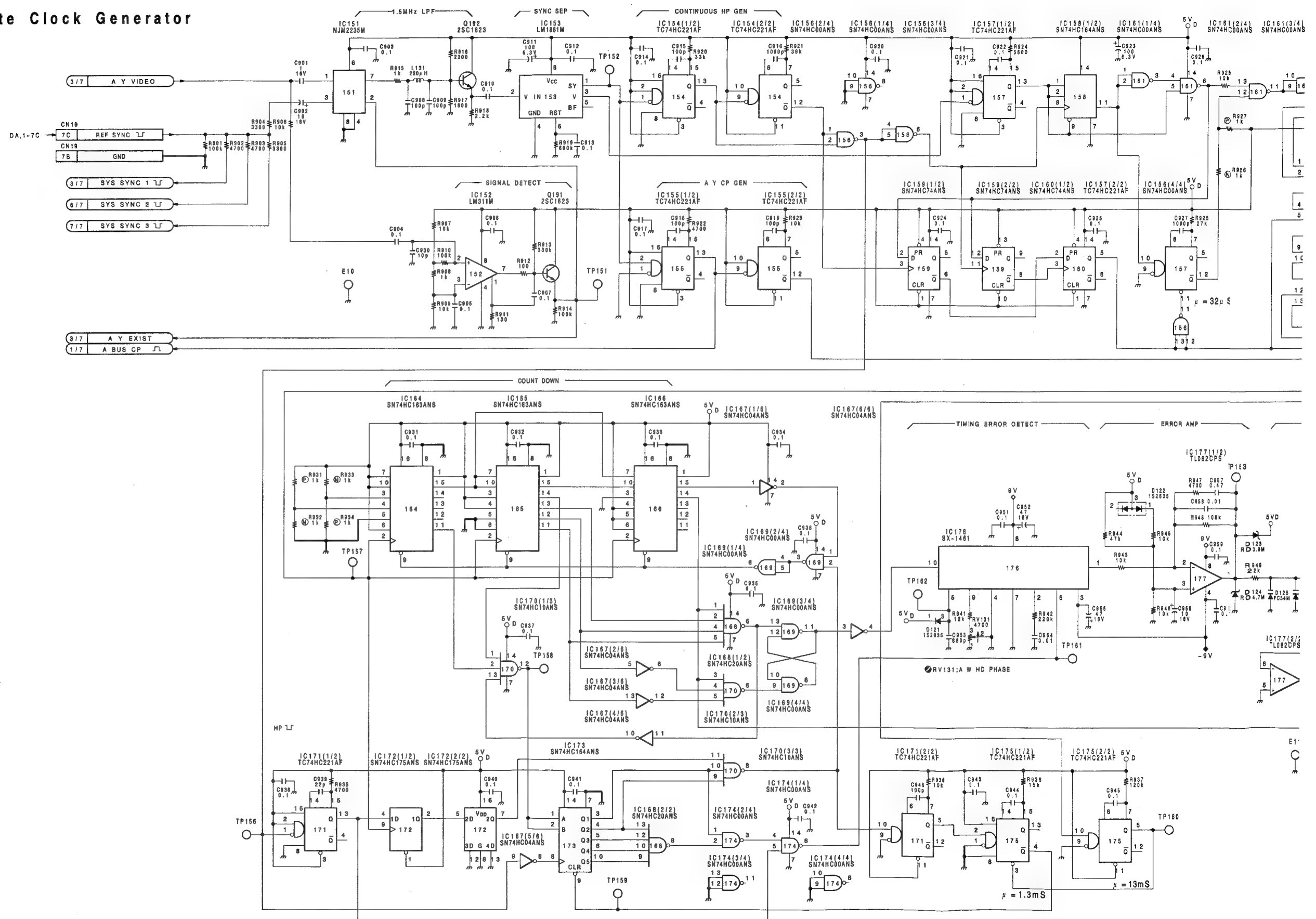




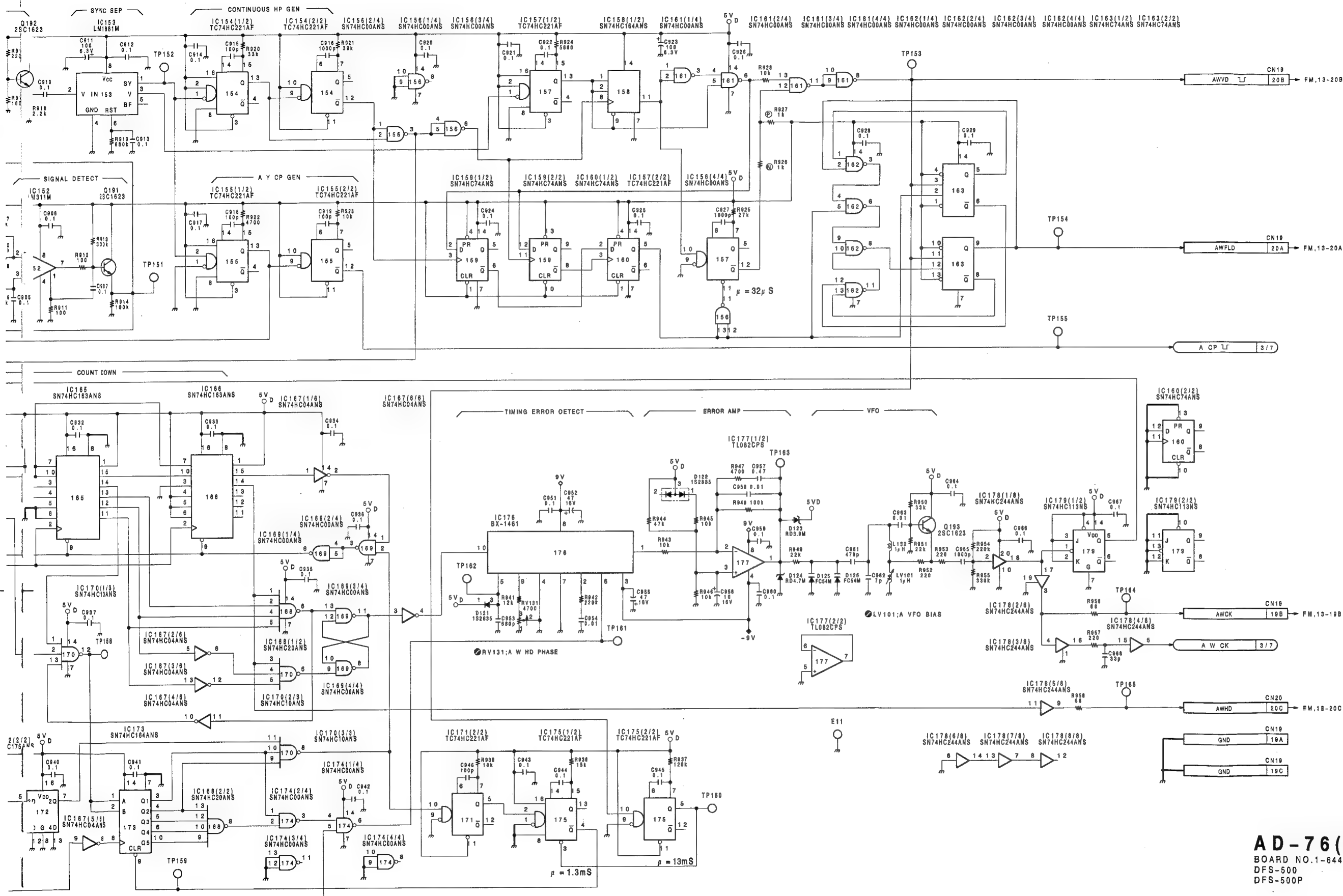




AD-76(4/7);A Write Clock Generator



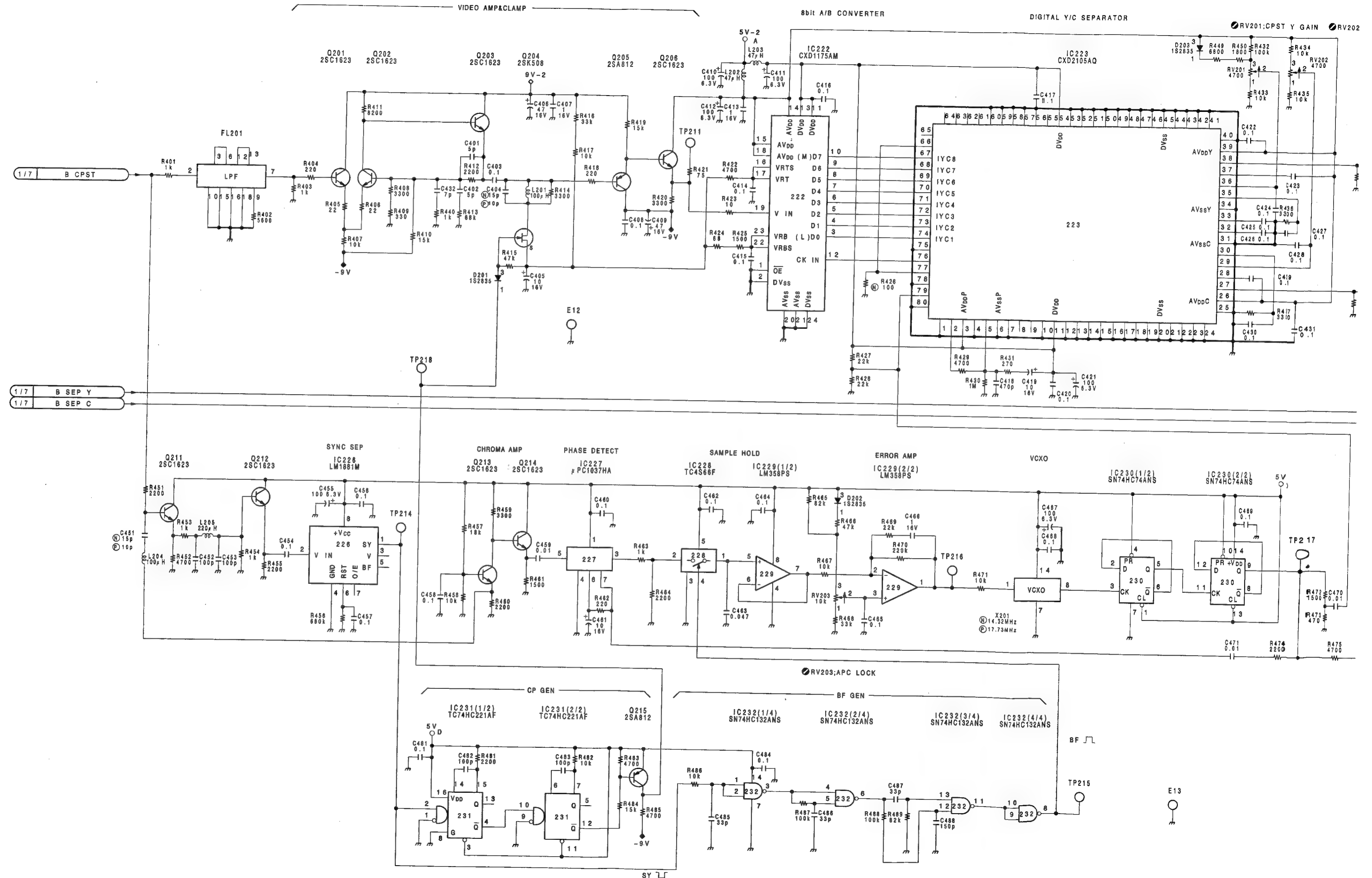




AD-76(4/7) BOARD  
BOARD NO. 1-644-602-11  
DFS-500  
DFS-500P



AD-76(5/7);B Y/C Separator & Clock Generator



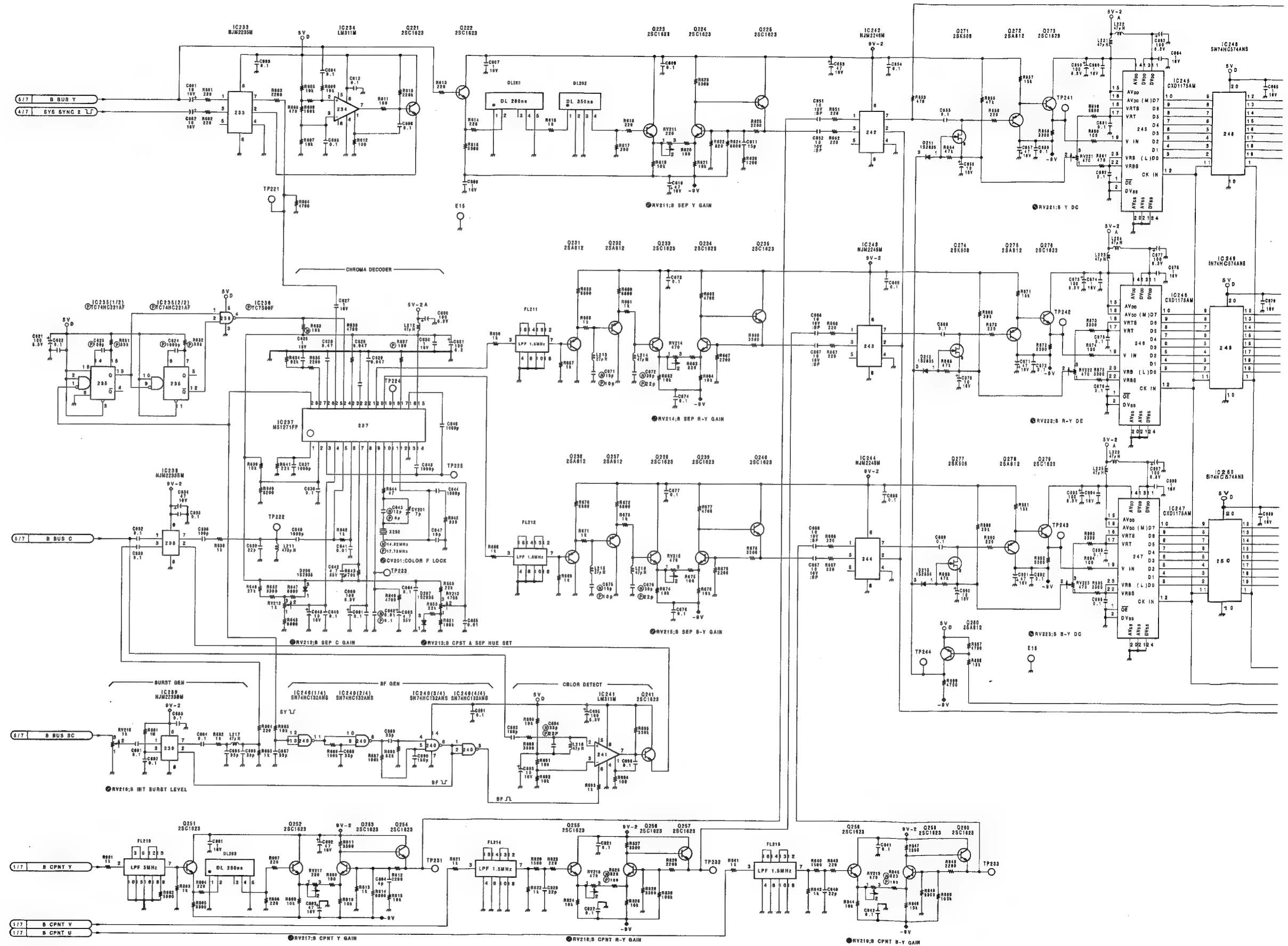




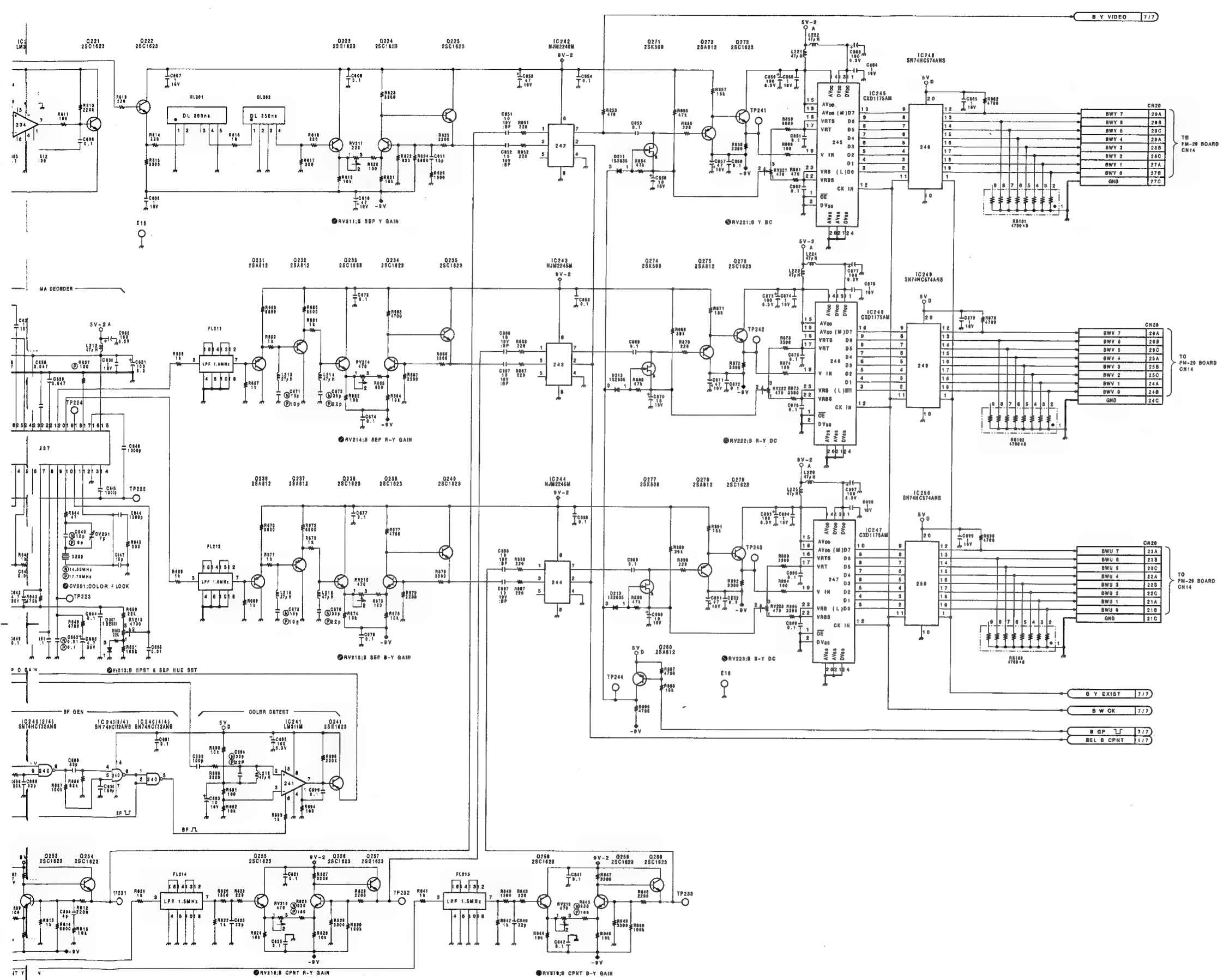
**AD-76(5/7) BOARD**  
BOARD NO.1-644-602-11  
DFS-500  
DFS-500P



**AD-76(6/7);B Chroma Decoder & A/D Converter**



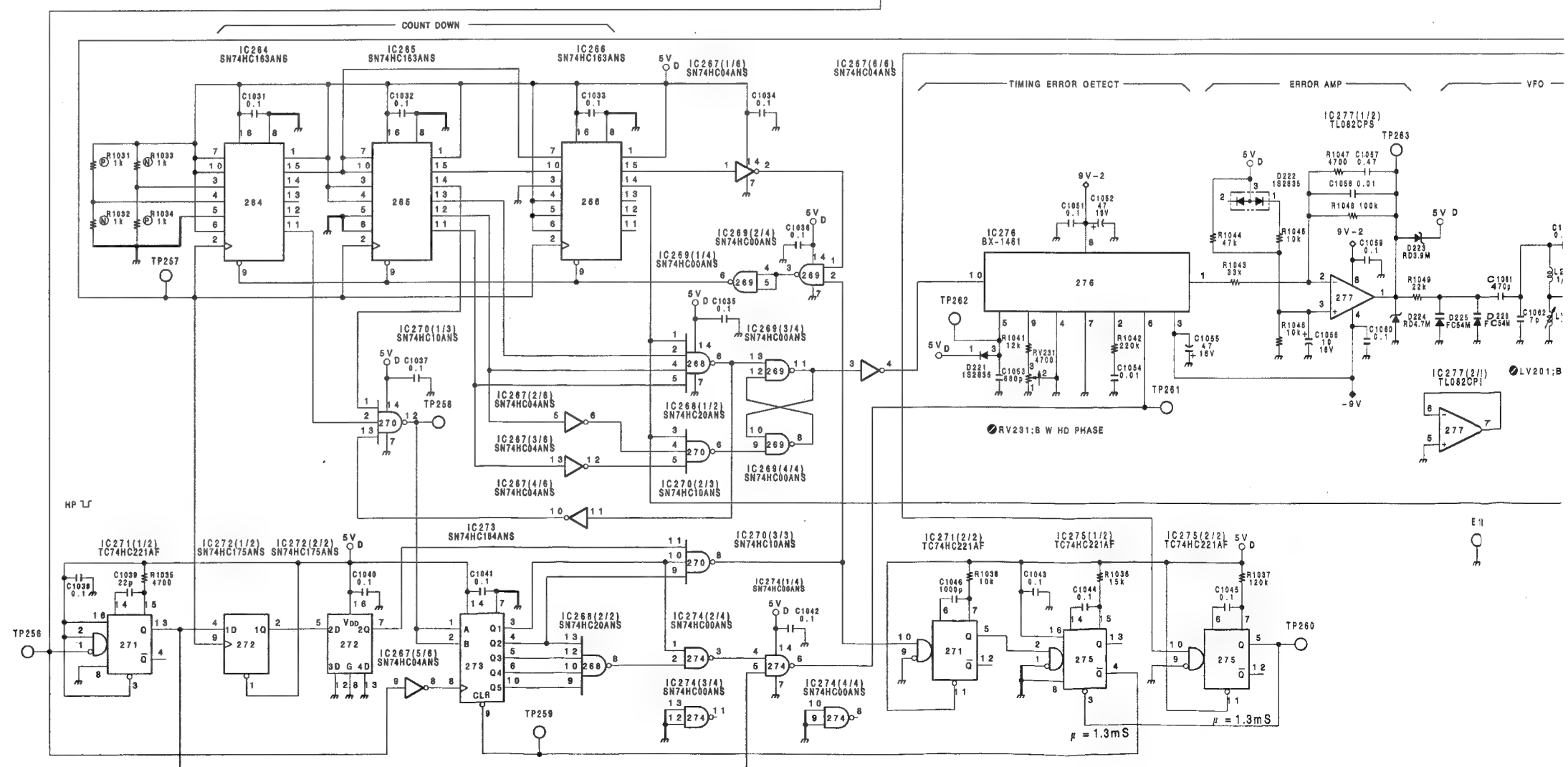
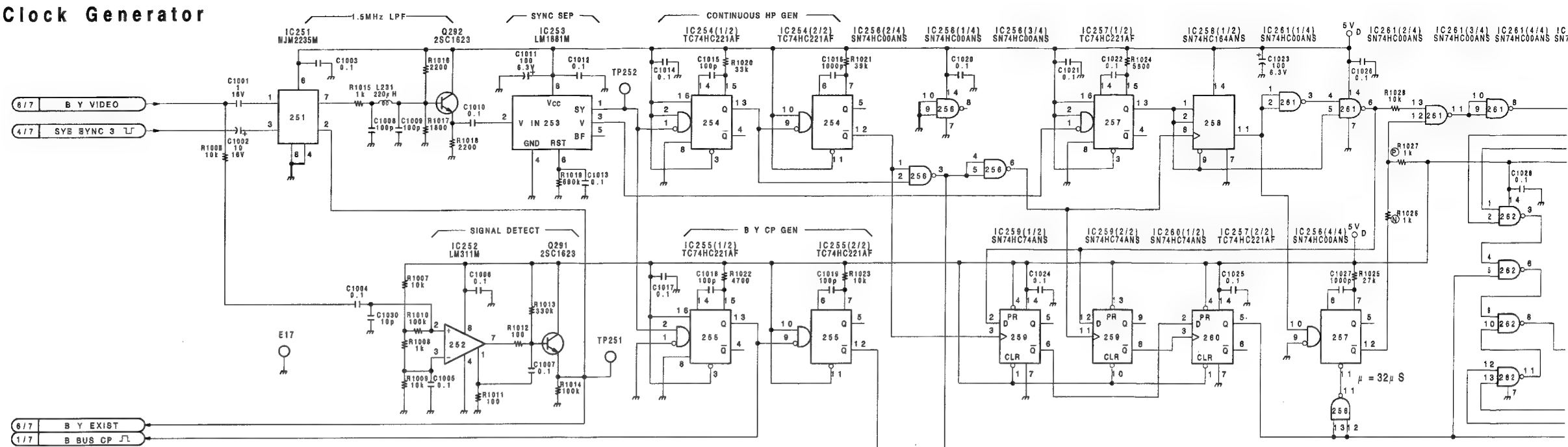




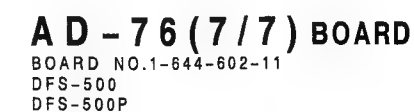
AD-76(6/7) BOARD  
BOARD NO.1-644-602-11  
DFS-500  
DFS-500P



**AD-76(7/7);B Write Clock Generator**

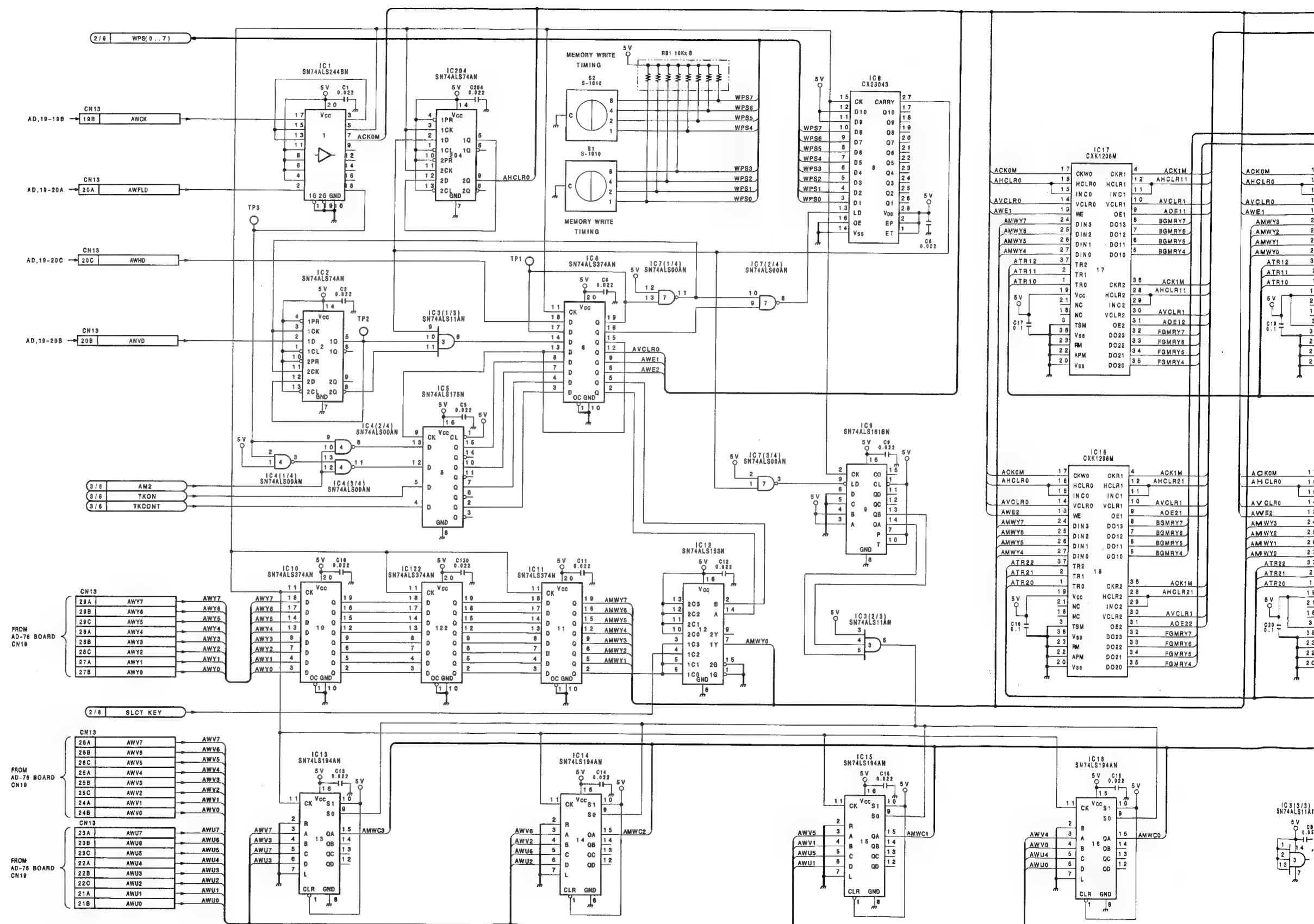




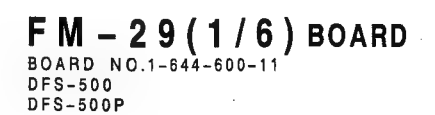




**FM-29(1/6);A Frame Memory & Write Controller**

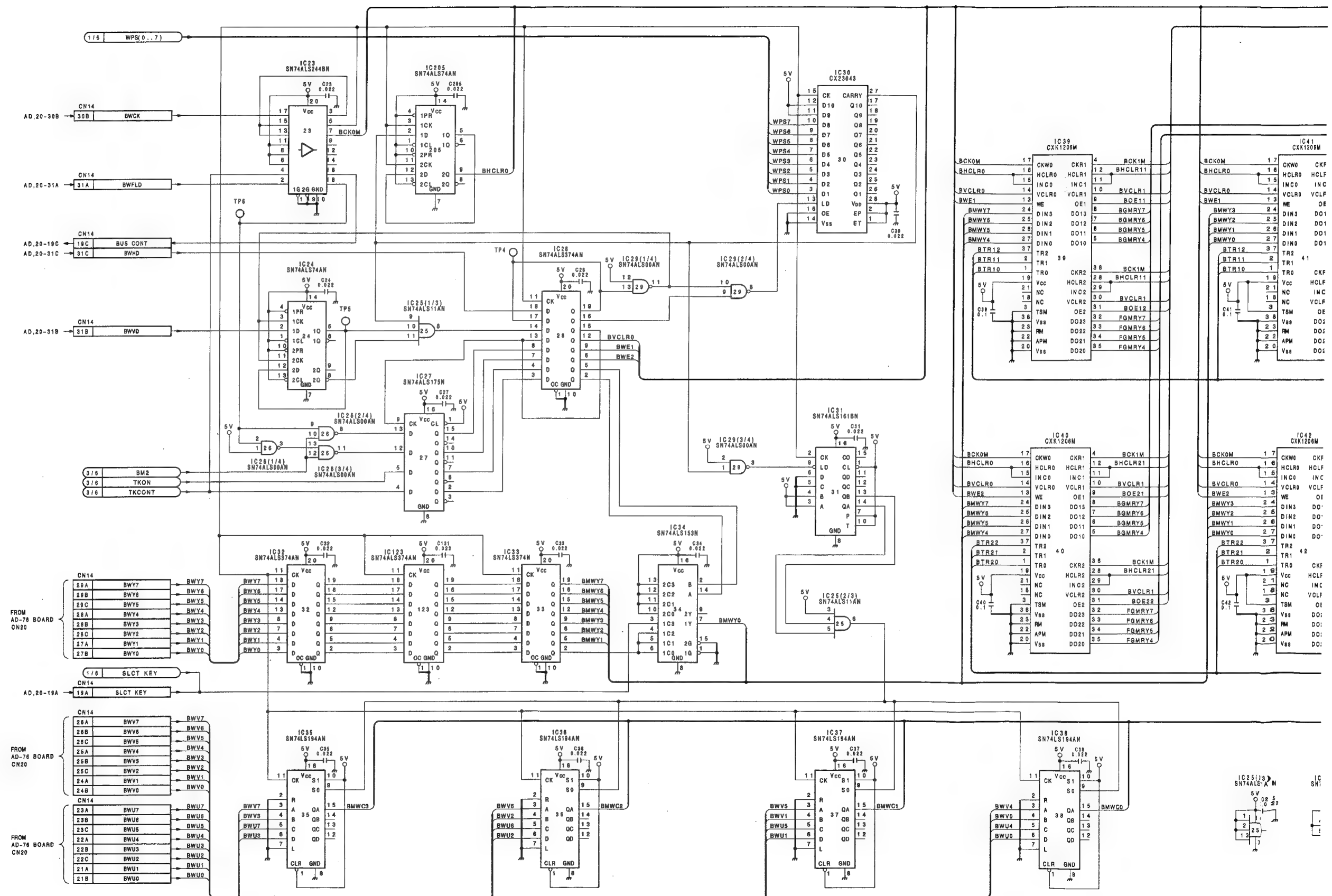




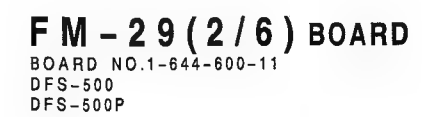




## FM-29(2/6);B Frame Memory & Write Controller

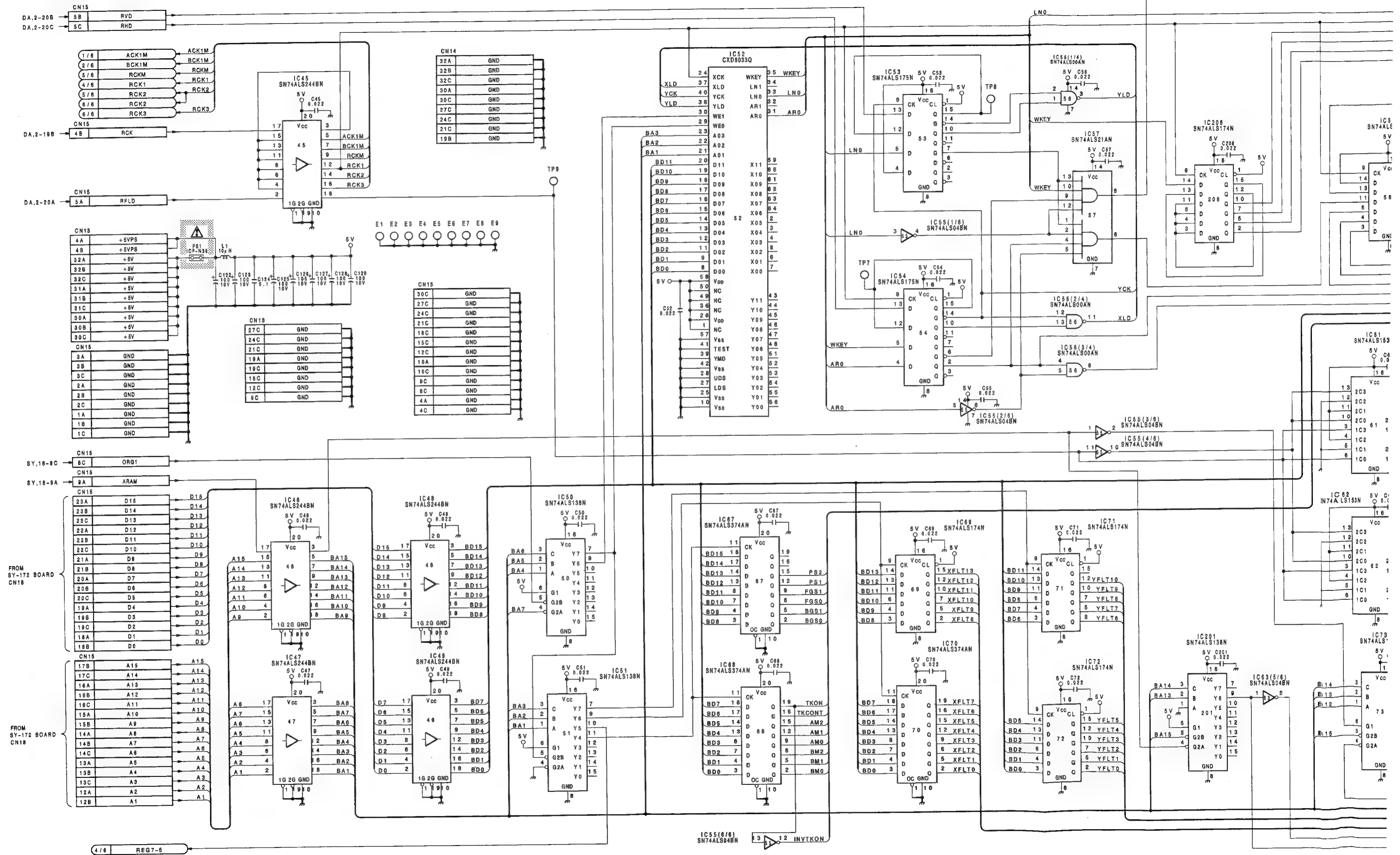




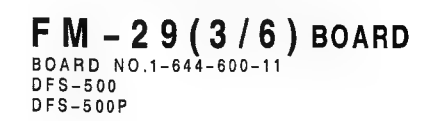




FM-29(3/6);Control Register,Memory Read Controller

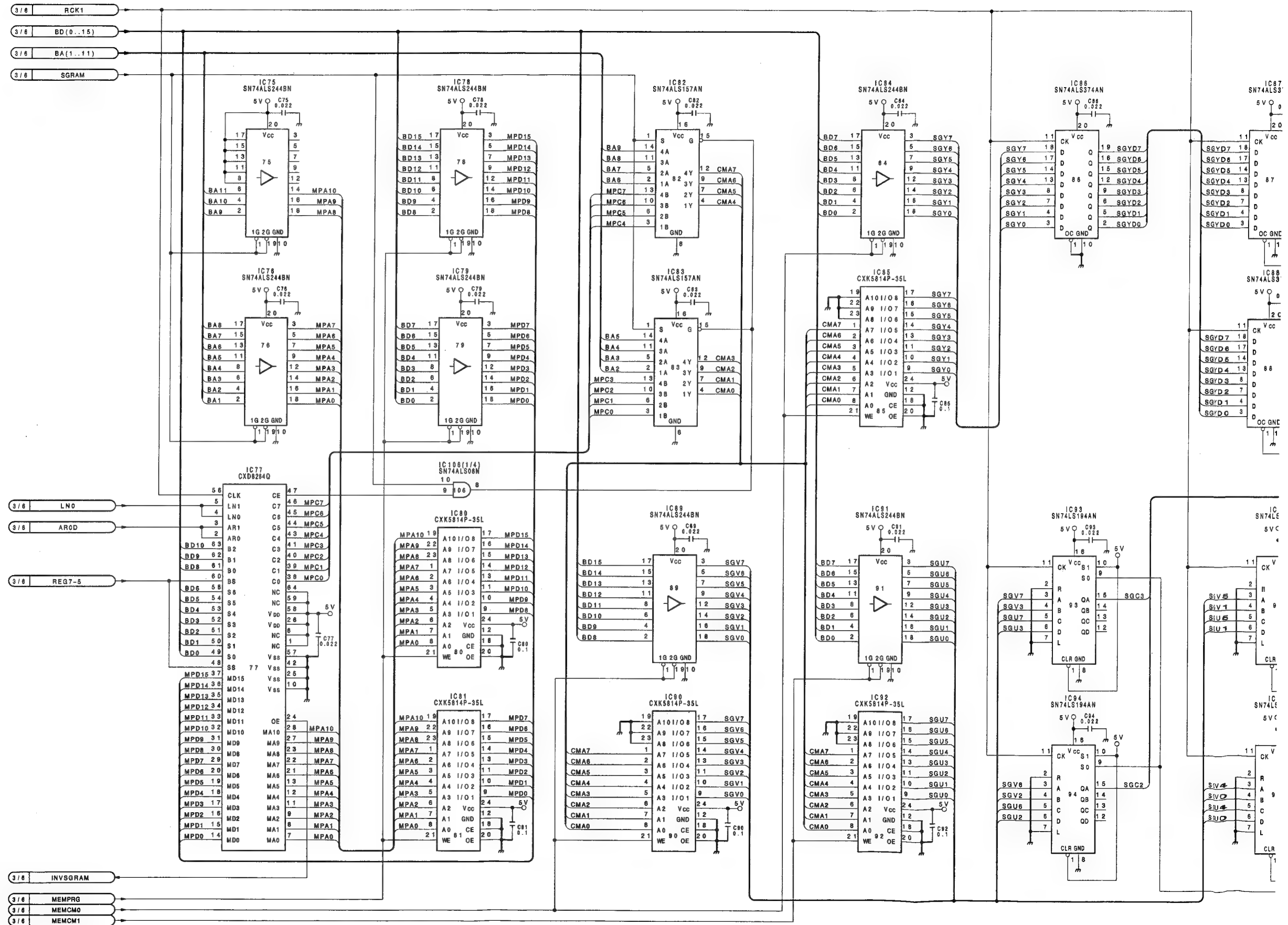




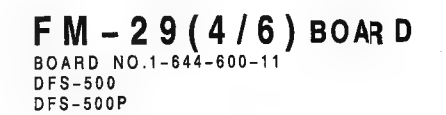




FM-29(4/6);Internal Video Signal Generator

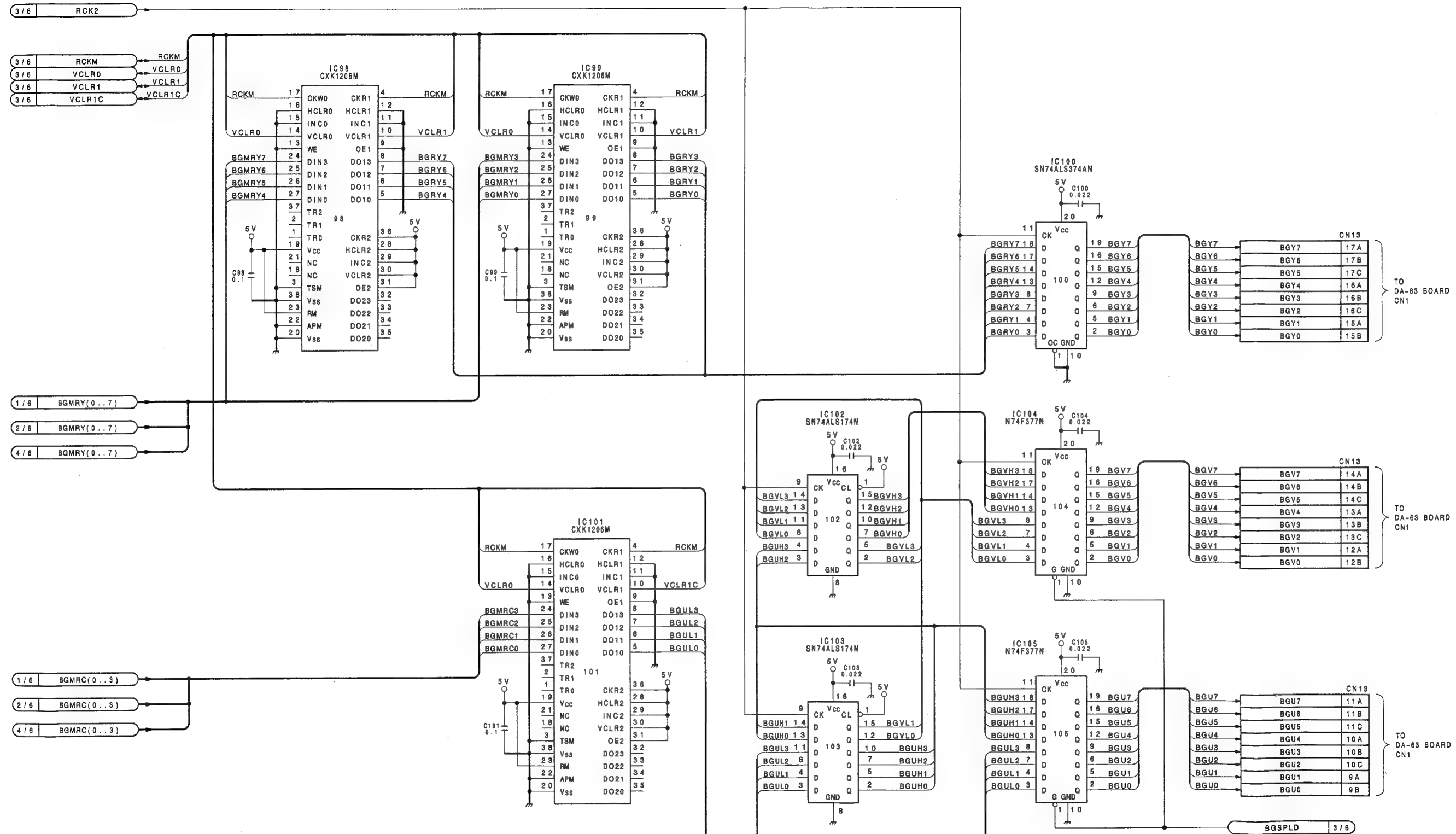








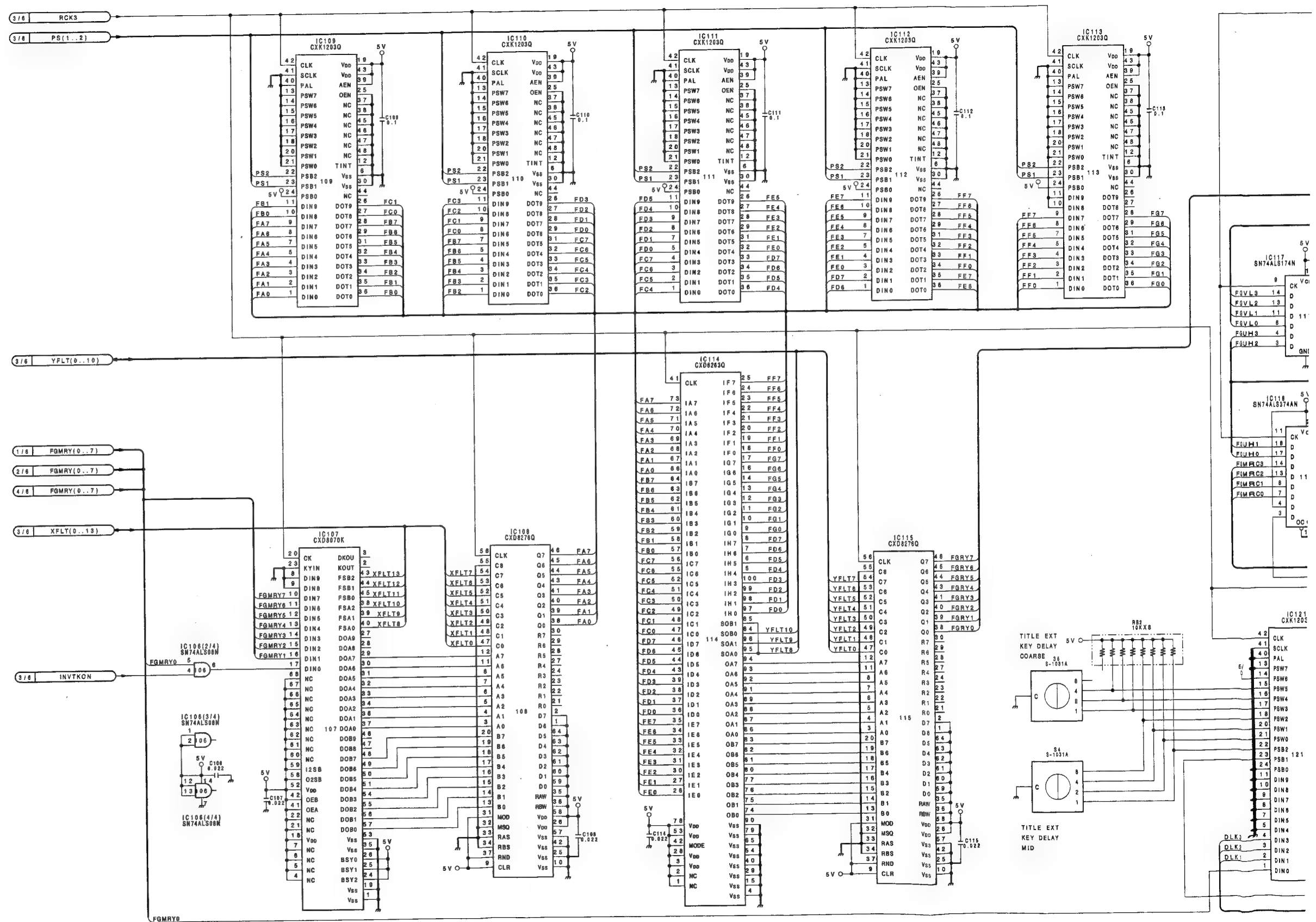
FM-29(5/6);BKGD Bus Field Delay Memory



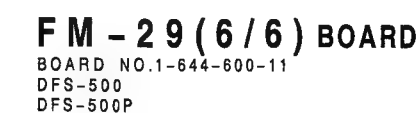
FM-29(5/6) BOARD  
BOARD NO.1-644-600-11  
DFS-500  
DFS-500P



**FM-29(6/6);FRGD Bus Digital Lowpass Filter**

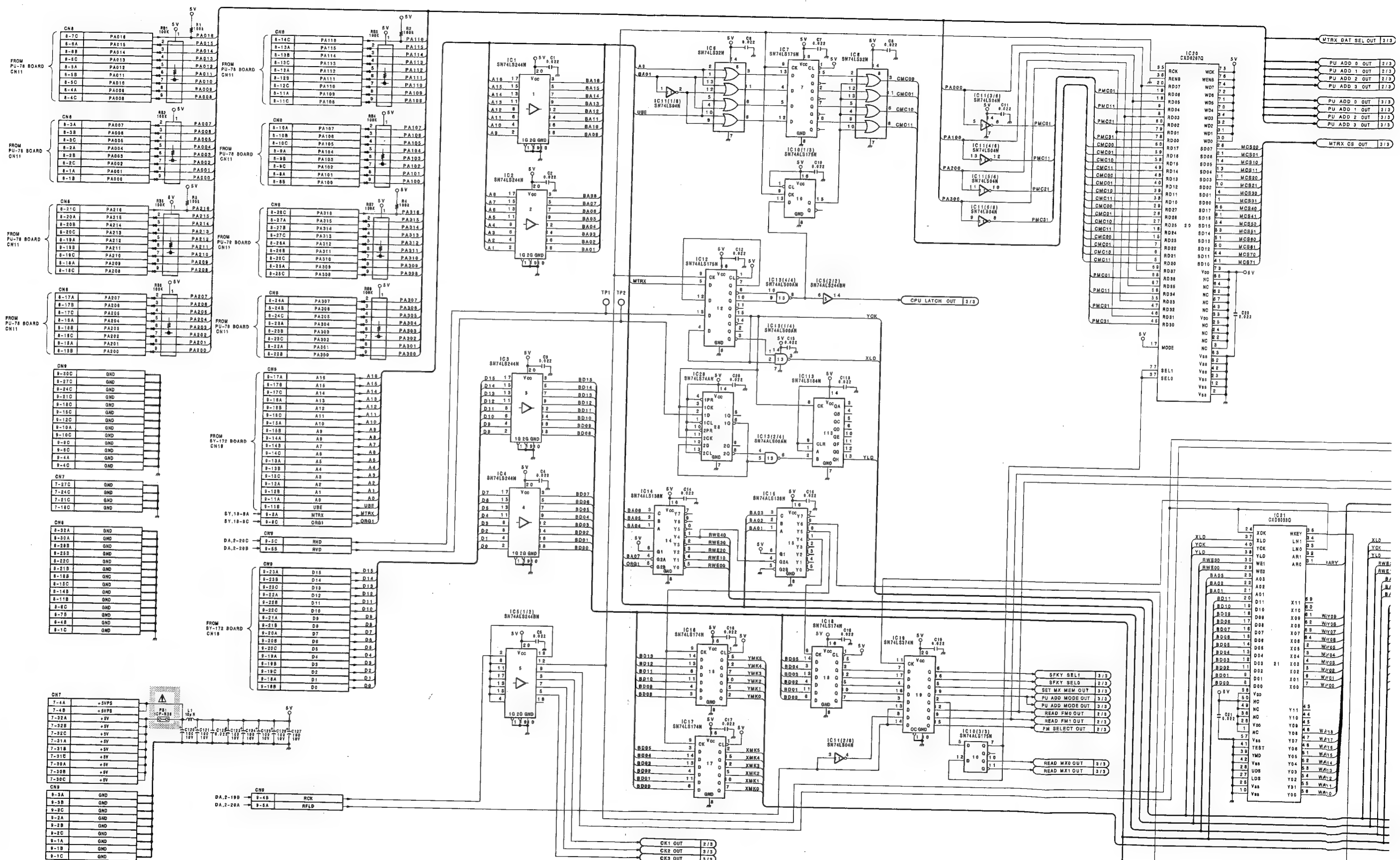




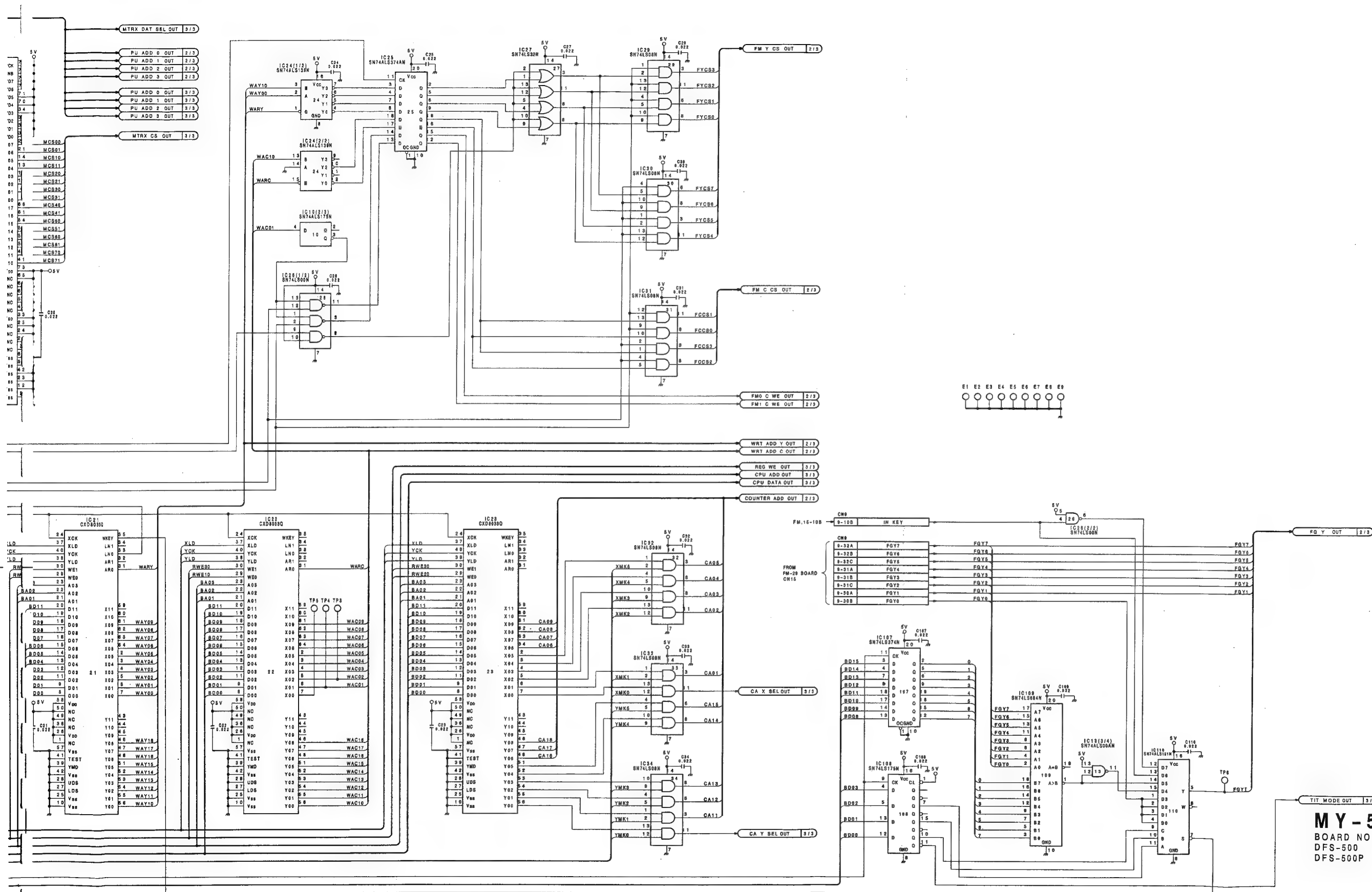




MY-54(1/3);Control Register,Address Counter,Title Key Process



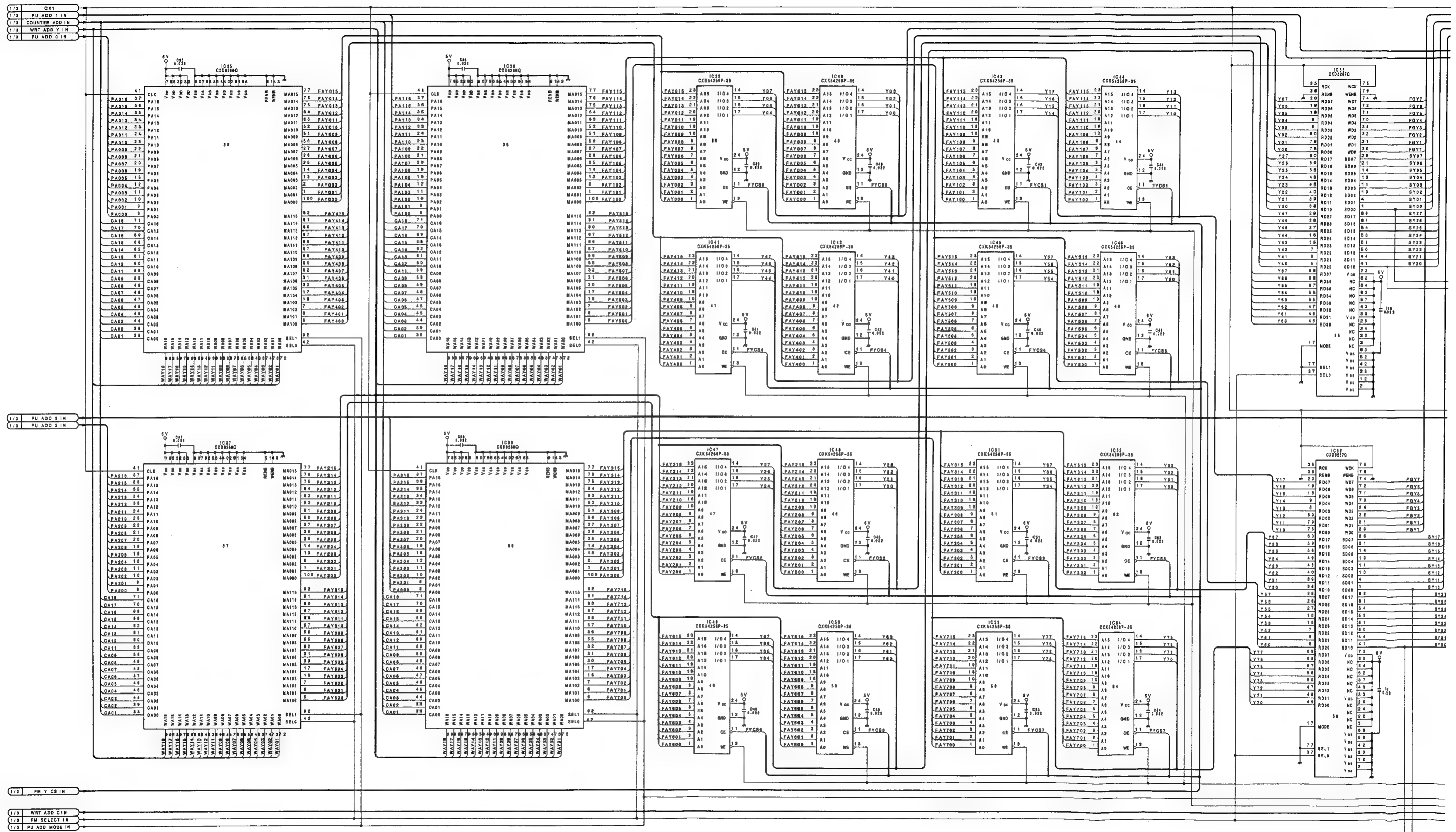




**MY-54(1/3) BOARD**  
BOARD NO.1-644-599-11  
DFS-500  
DFS-500P

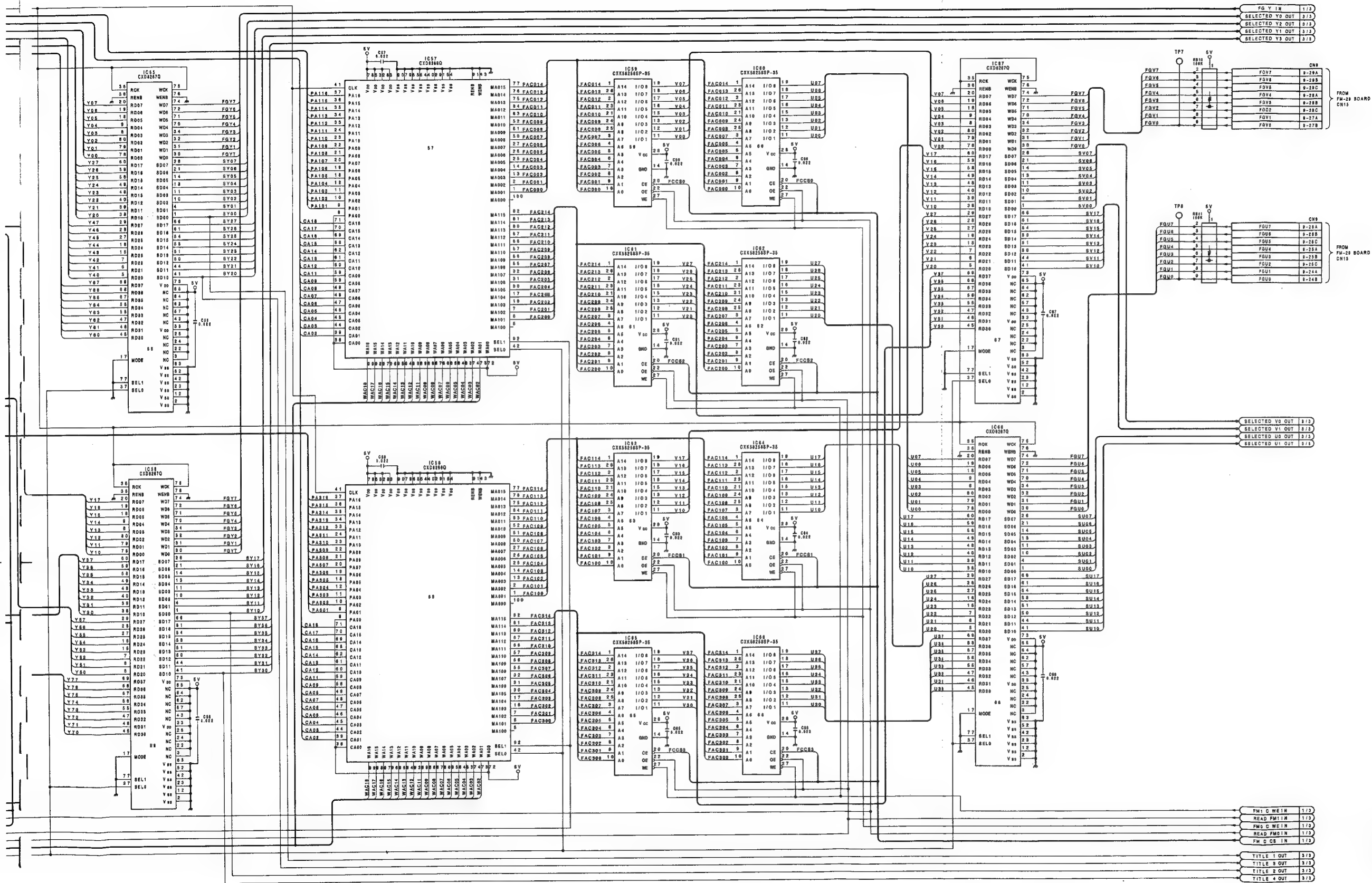


**MY-54(2/3); Video Effect Memory**





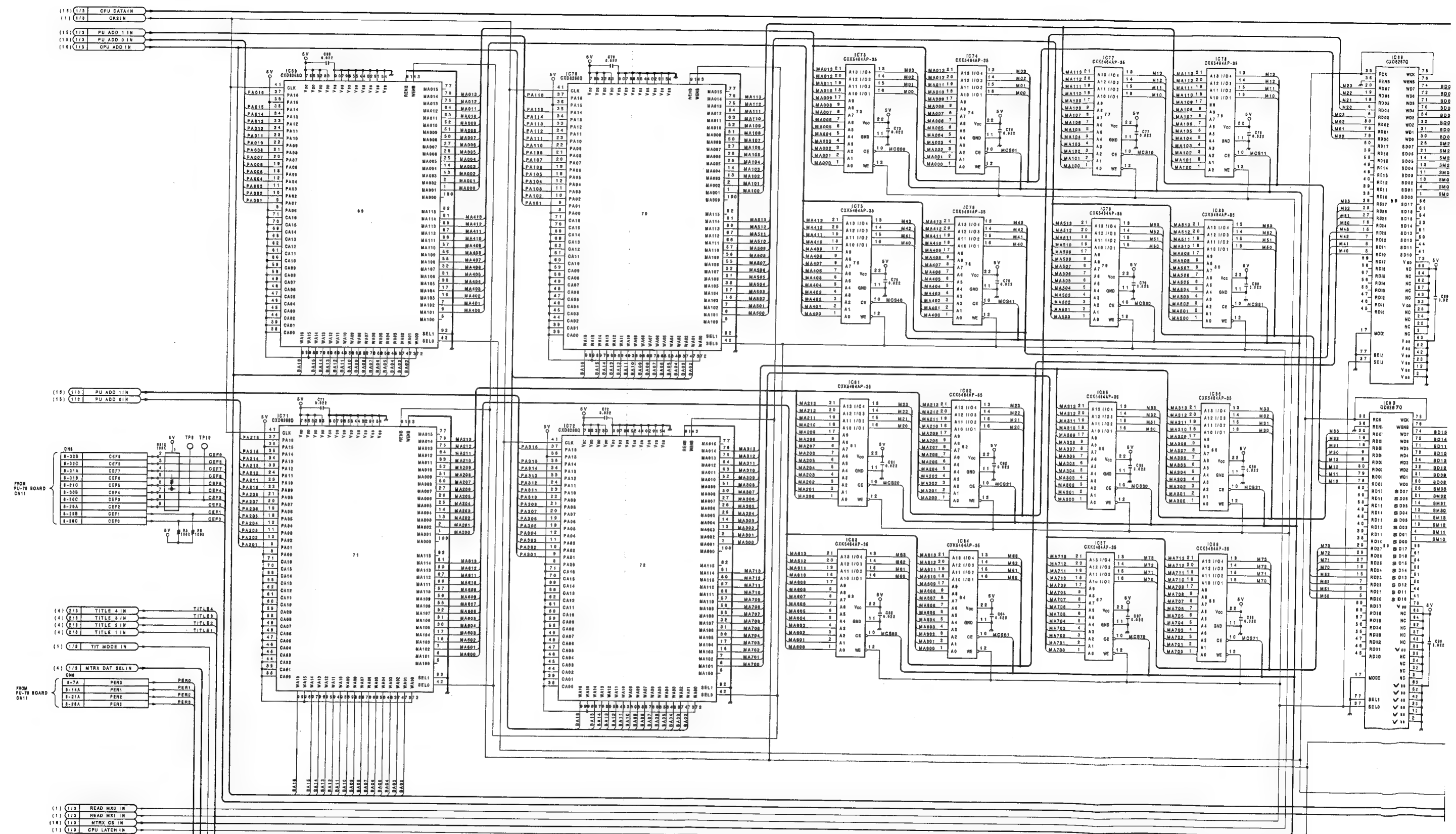
PROCESS UNIT MY-54(2/3) MY-54(2/3) PROCESS UNIT



MY-54(2/3) BOARD  
BOARD NO.1-644-599-11  
DFS-500  
DFS-500P

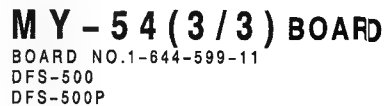


**MY-54(3/3); Matrix Memory, Interpolator**

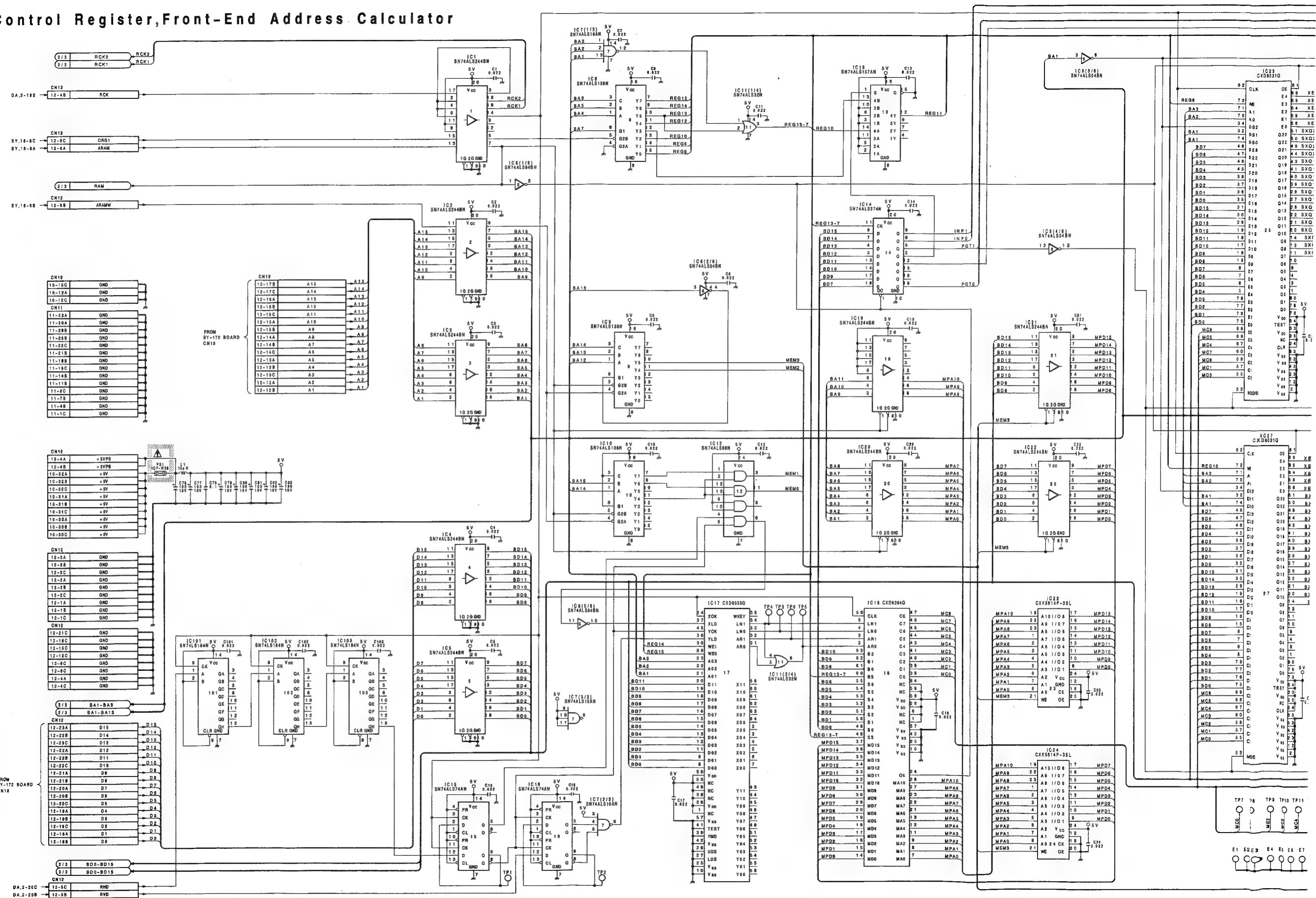




**MY-54(3/3) PROCESS UNIT**







A

**B**

C

D

**E**

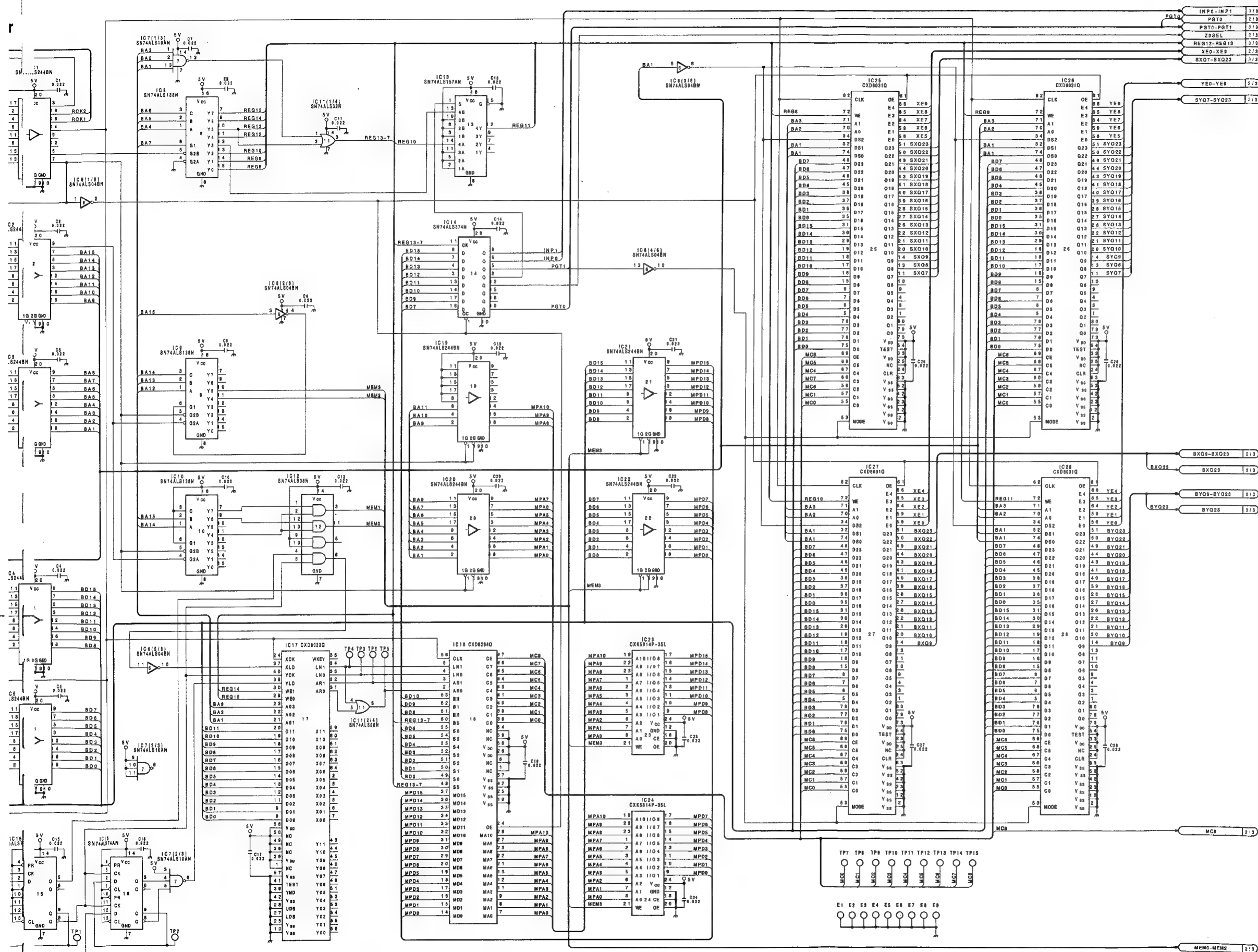
**F**

**G**

H

1

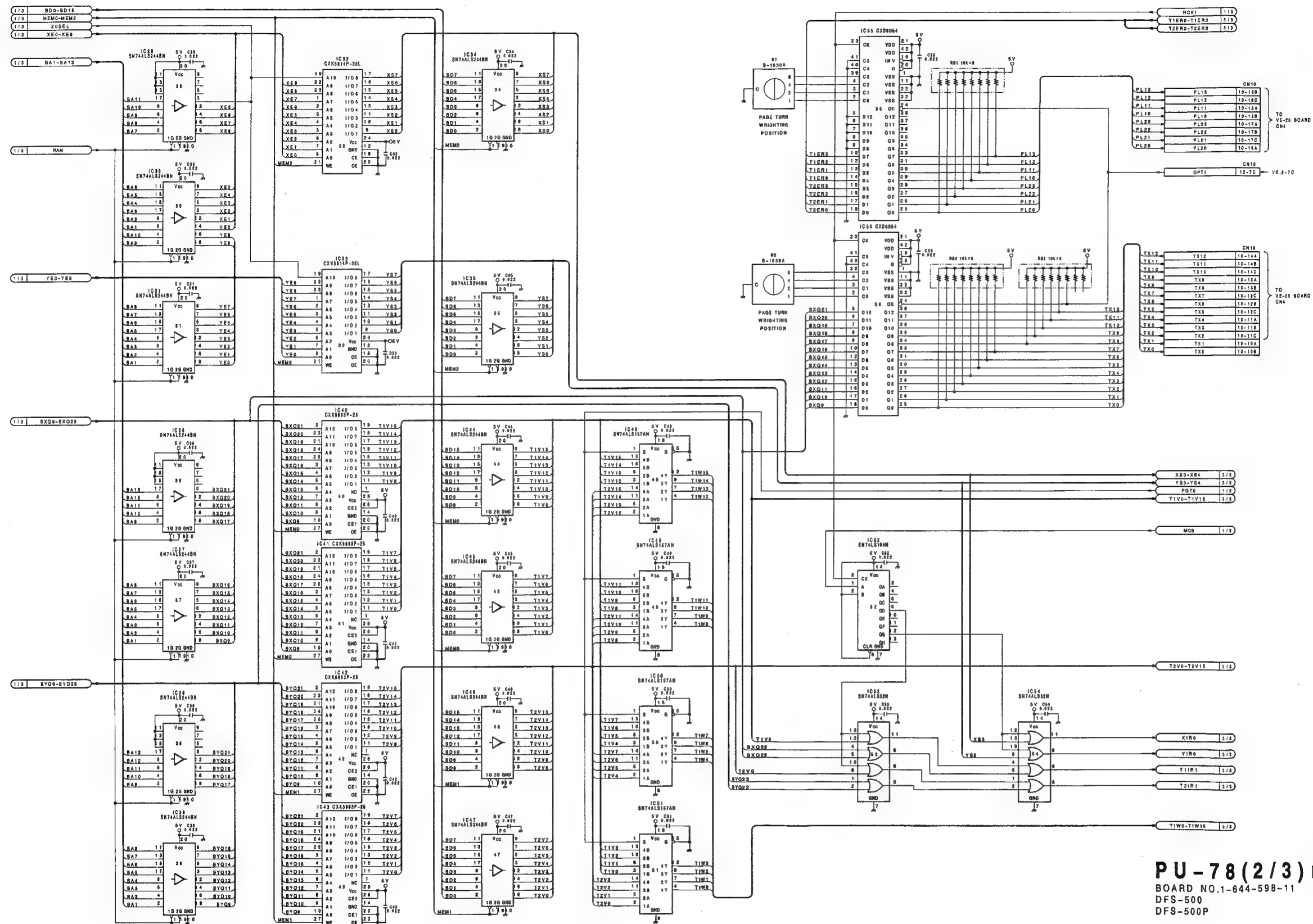




**PU-78(1/3) BOARD**  
BOARD NO.1-644-598-11  
DFS-500  
DFS-500P



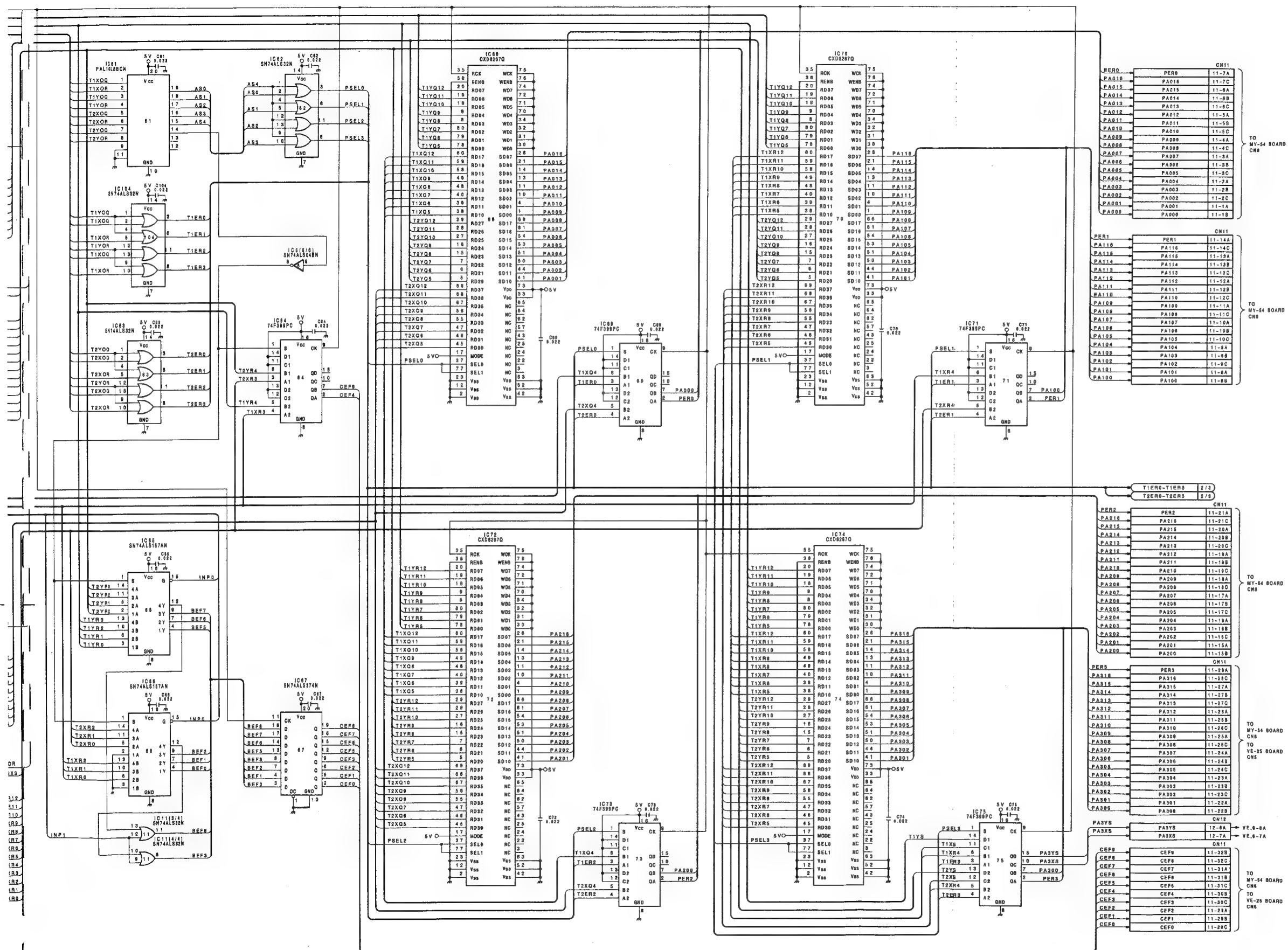
PU-78(2/3); Look Up Table Memory



**PU-78(2/3) BOARD**  
BOARD NO.1-644-598-11  
DFS-500  
DFS-500P



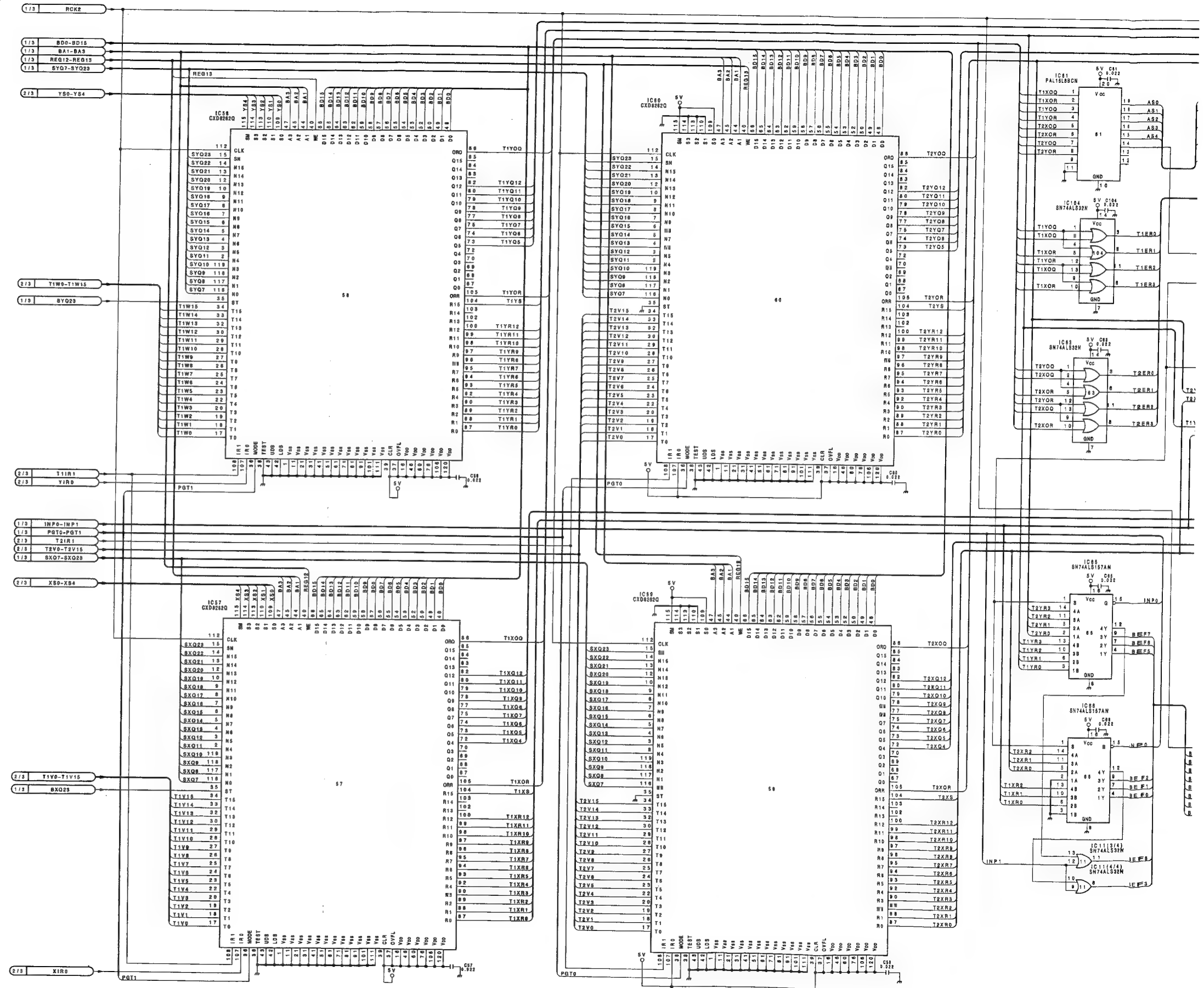
PROCESS UNIT P U - 7 8 ( 3 / 3 )    P U - 7 8 ( 3 / 3 ) PROCESS UNIT



**PU-78(3/3) BOARD**  
BOARD NO.1-644-598-11  
DFS-500  
DFS-500P

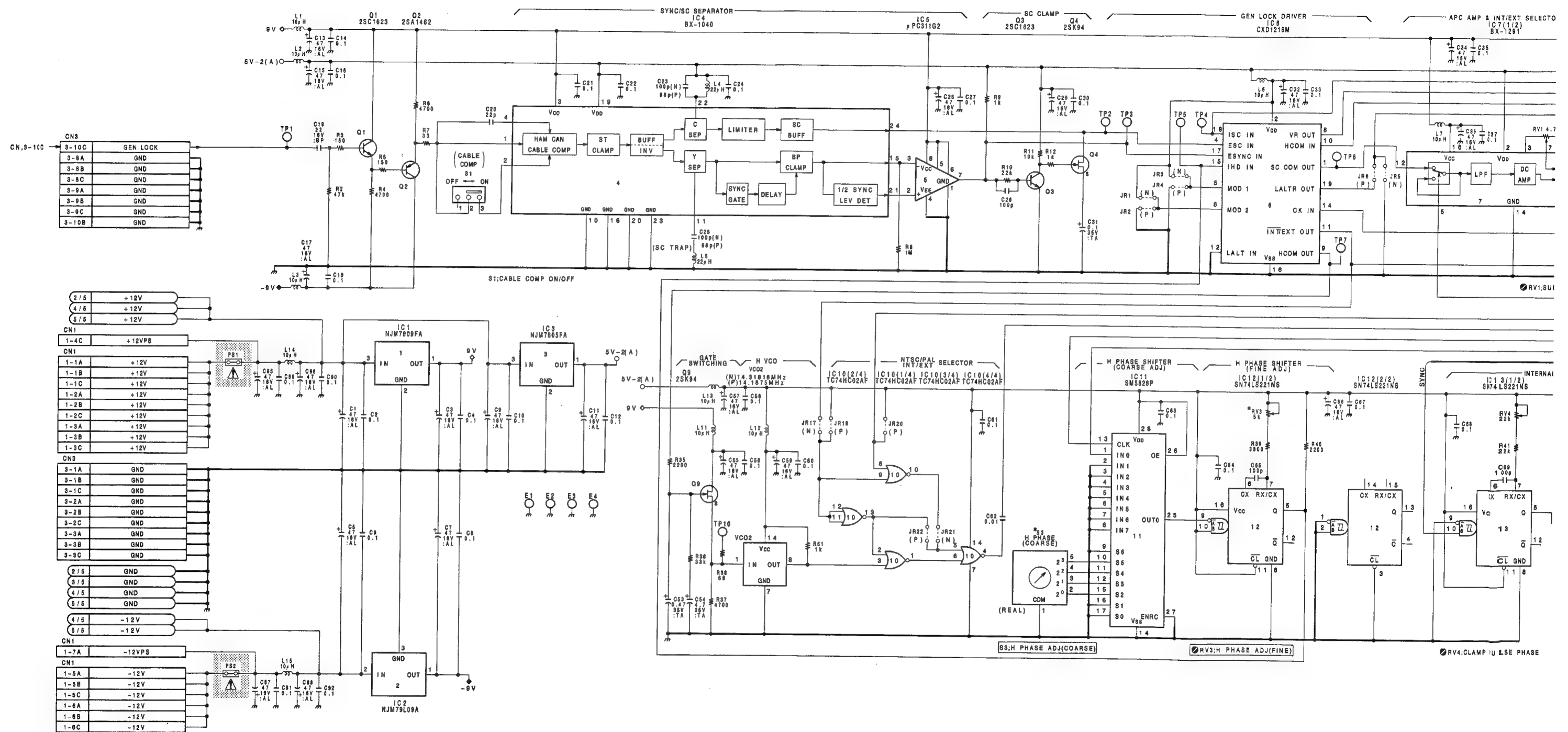


PU-78(3/3);Back-End Address Calculator

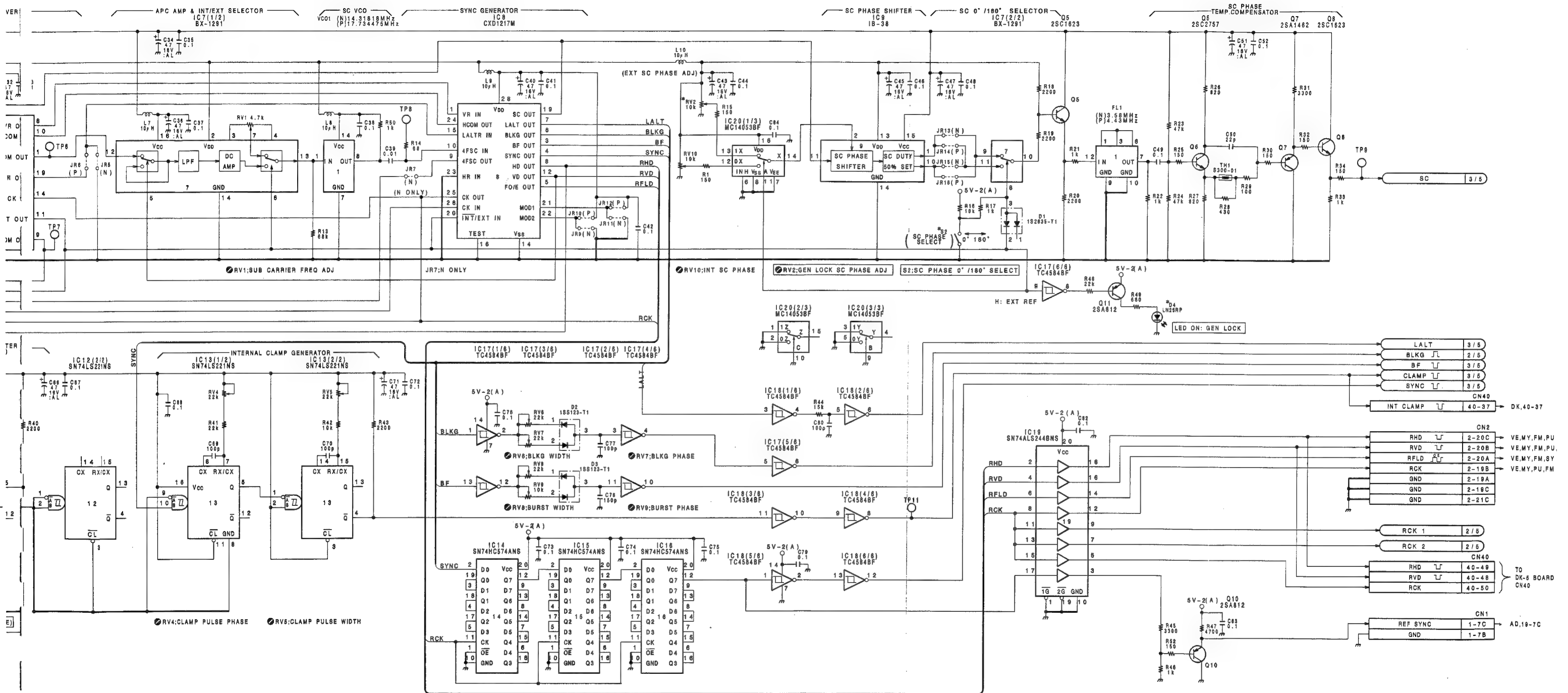




DA-63(1/5); SYNC Generator



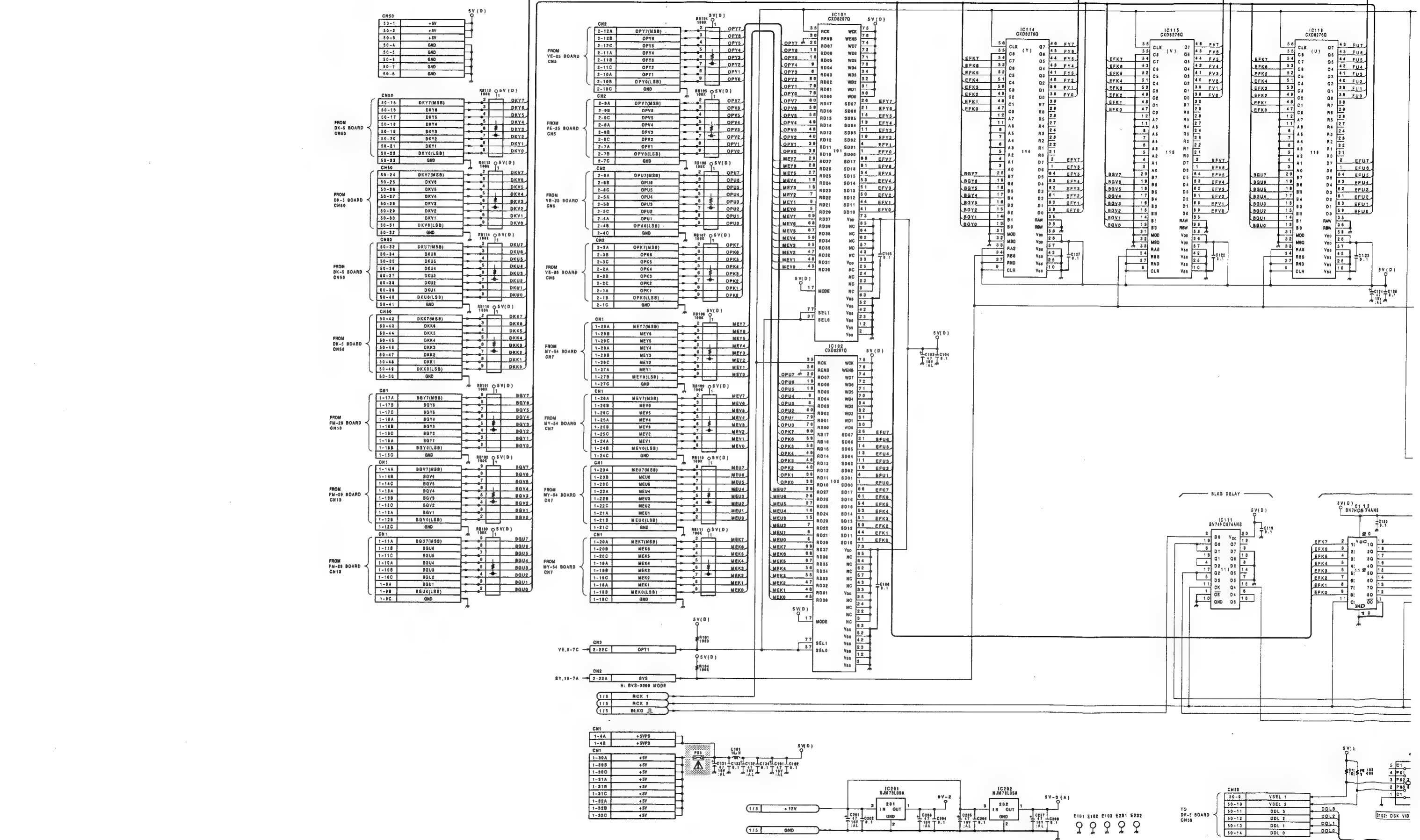




**DA-63(1/5) BOARD**  
BOARD NO.1-644-601-11  
DFS-500  
DFS-500P

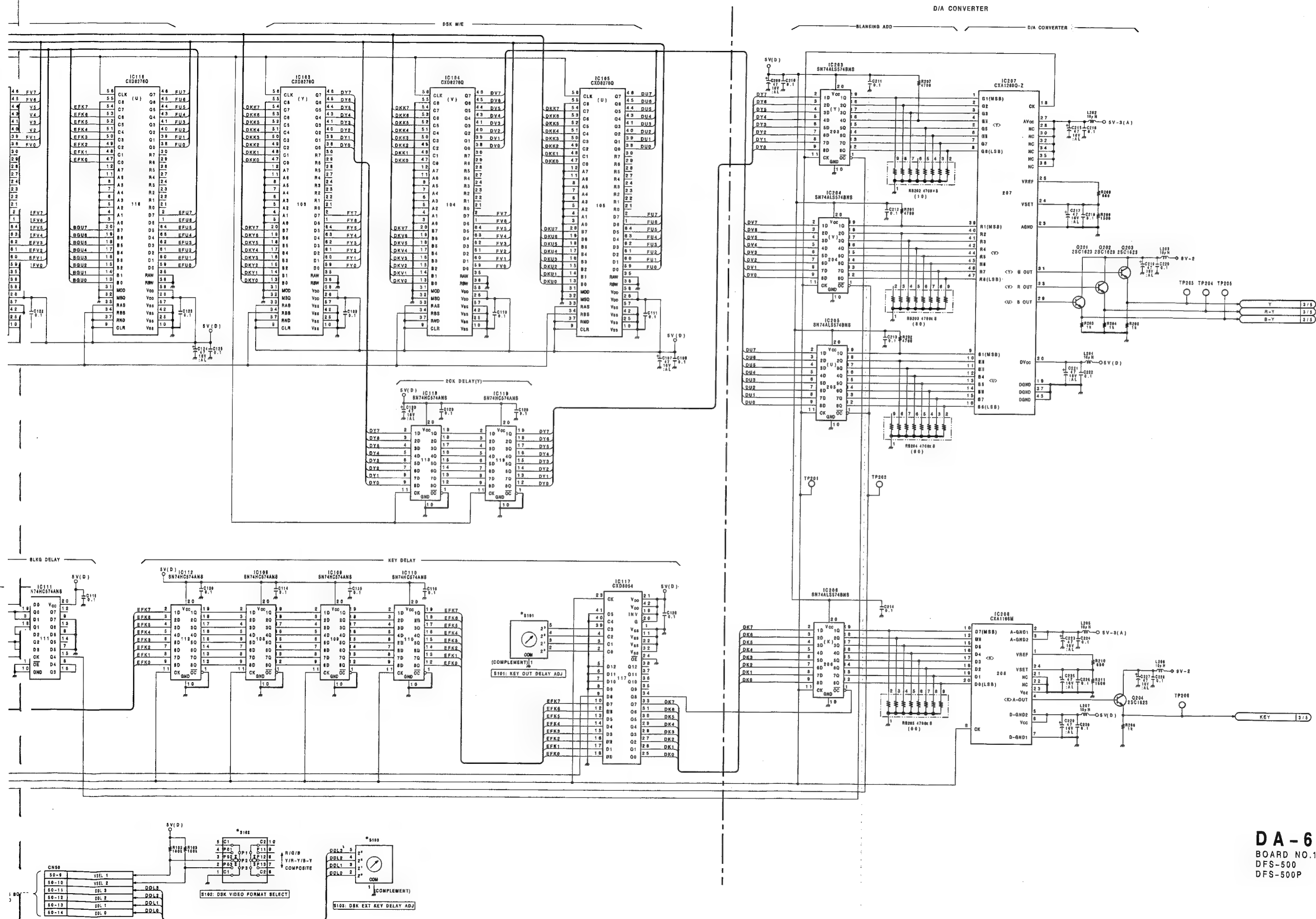


DA-63(2/5); Digital M/E & D/A Converter





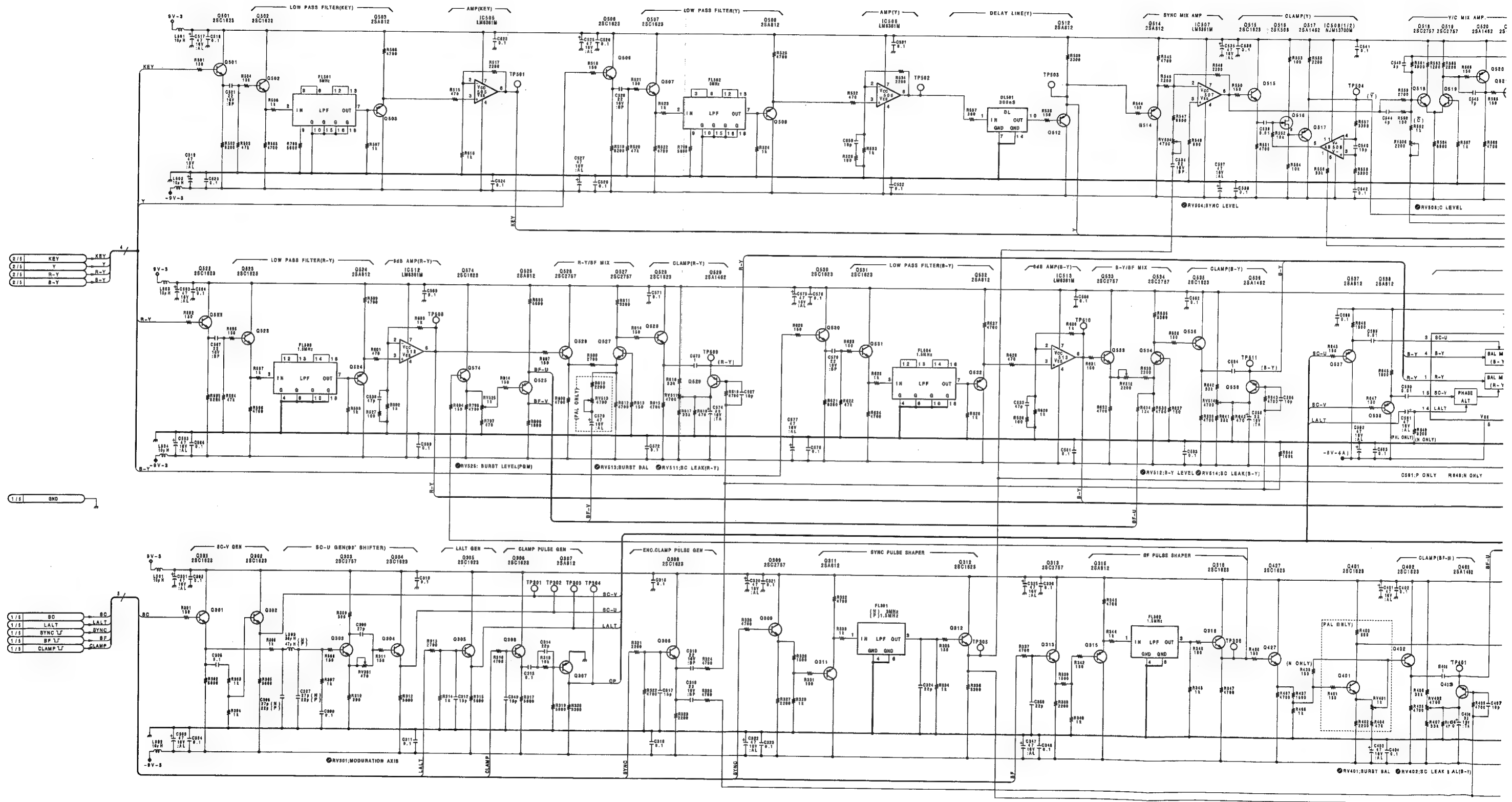
**DA-63(2/5) PROCESS UNIT**



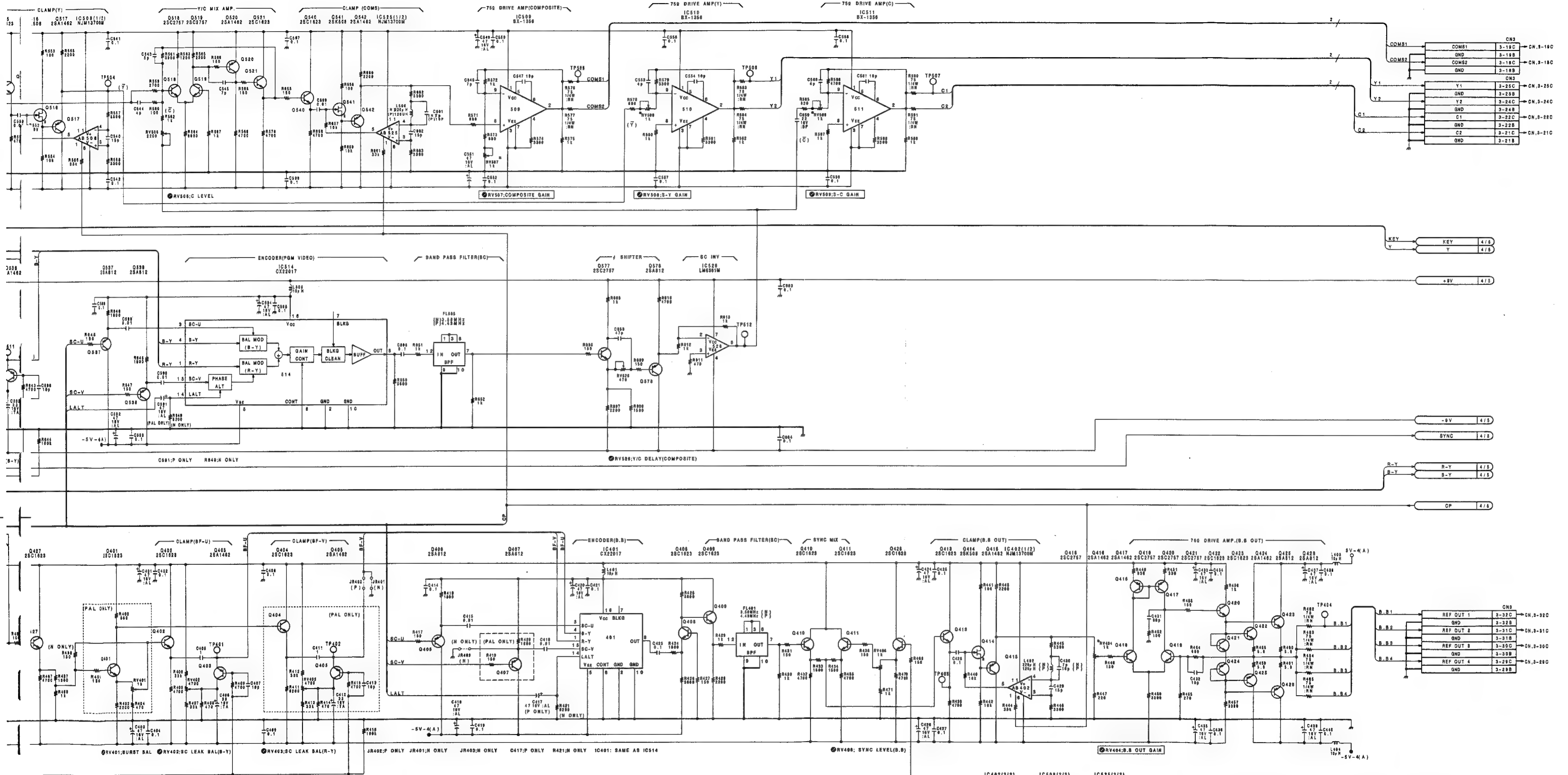
**DA-63(2/5) BOARD**  
BOARD NO.1-644-601-11  
DFS-500  
DFS-500P



DA-63(3/5);PGM Out(Composite,S) Processor & B.B Generator



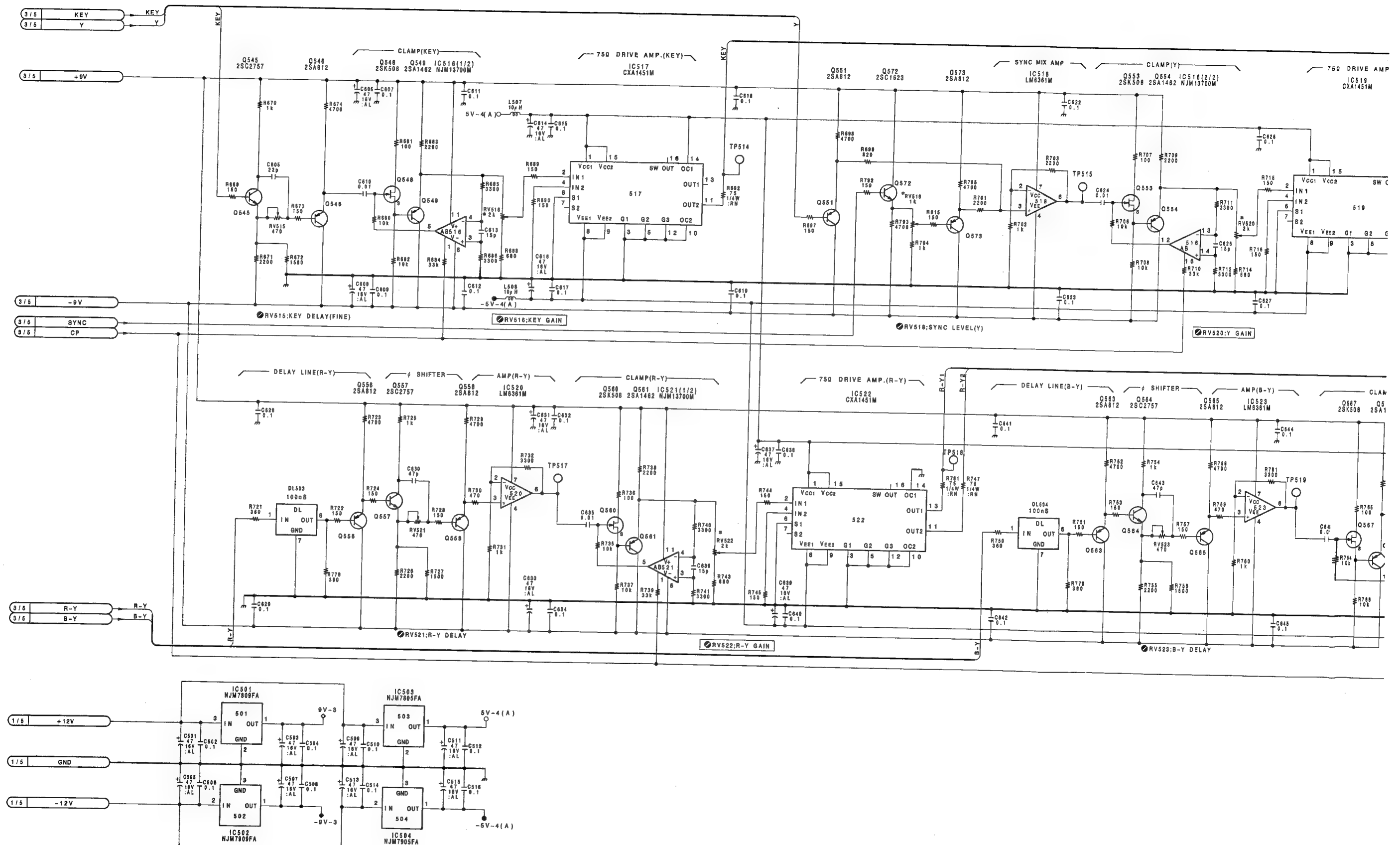




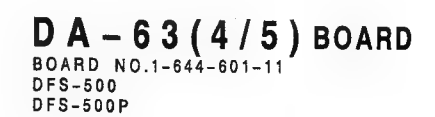
DA-63(3/5) BOARD  
BOARD NO.1-644-601-11  
DFS-500  
DFS-500P



DA-63(4/5);PGM Out(Component) & Key Out PRO

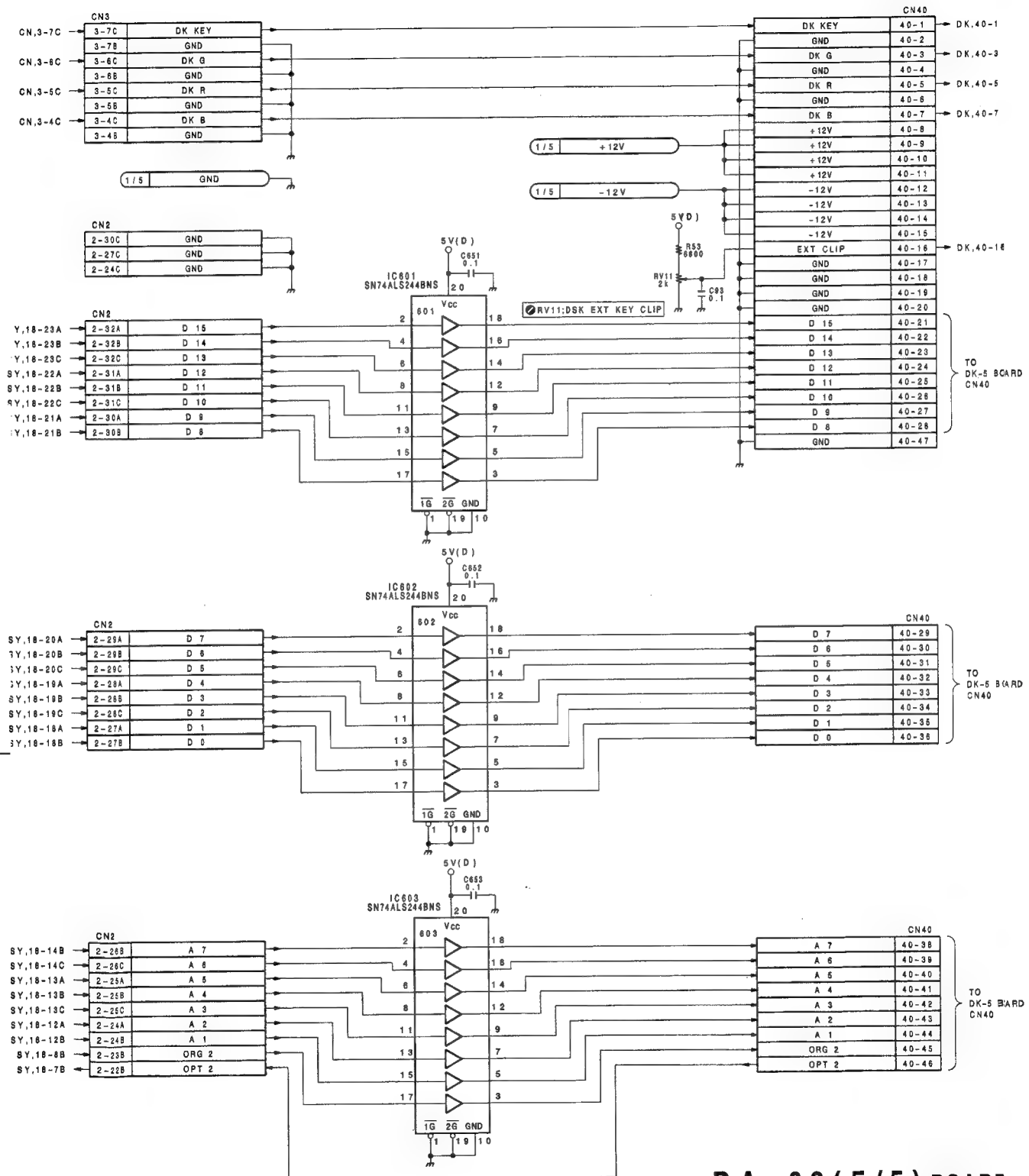








## DA-63(5/5); Address &amp; Data Bus Driver



DA-63(5/5) BOARD

BOARD NO.1-644-601-11

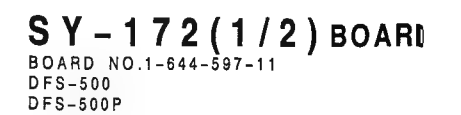
DFS-500

DFS-500P



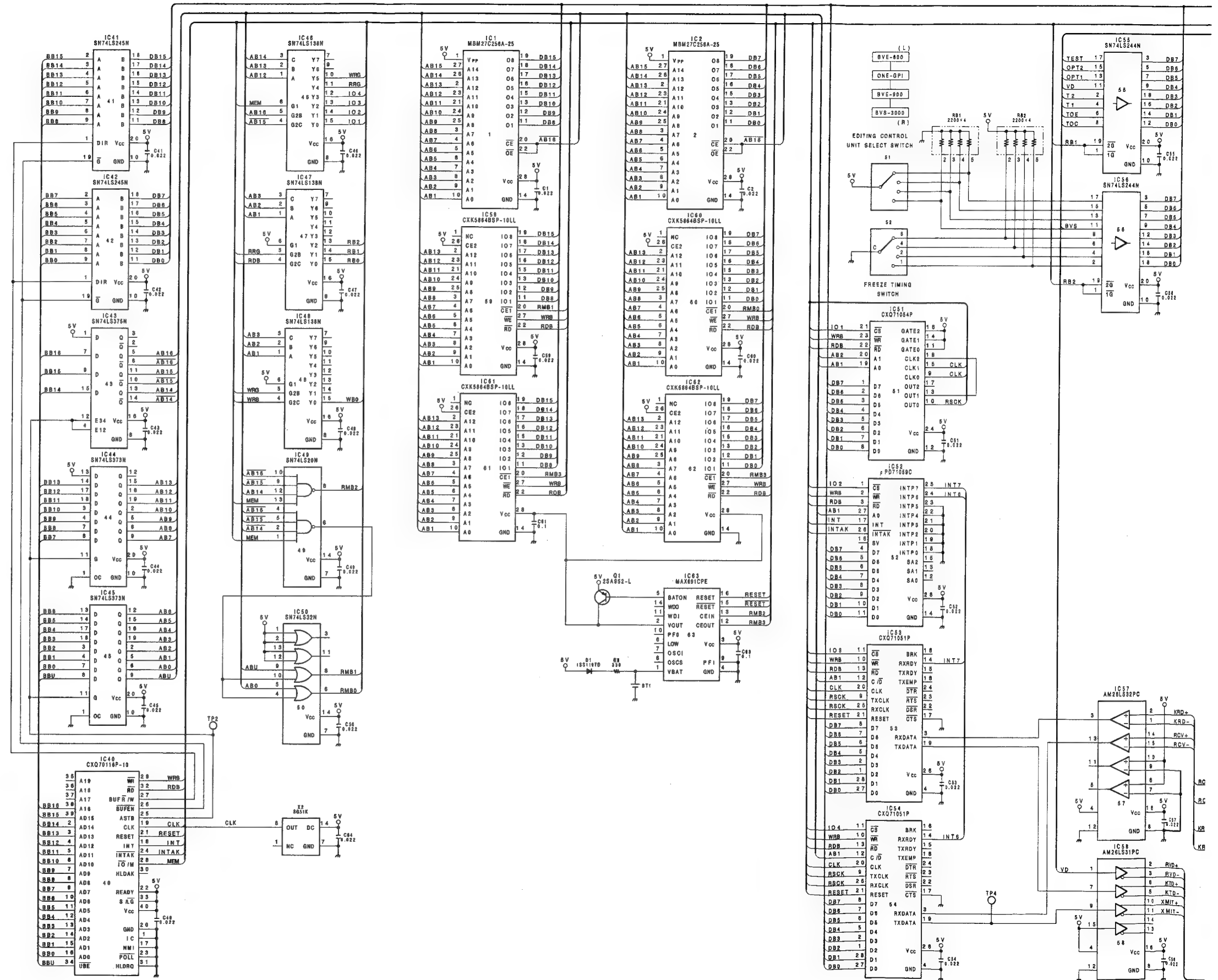




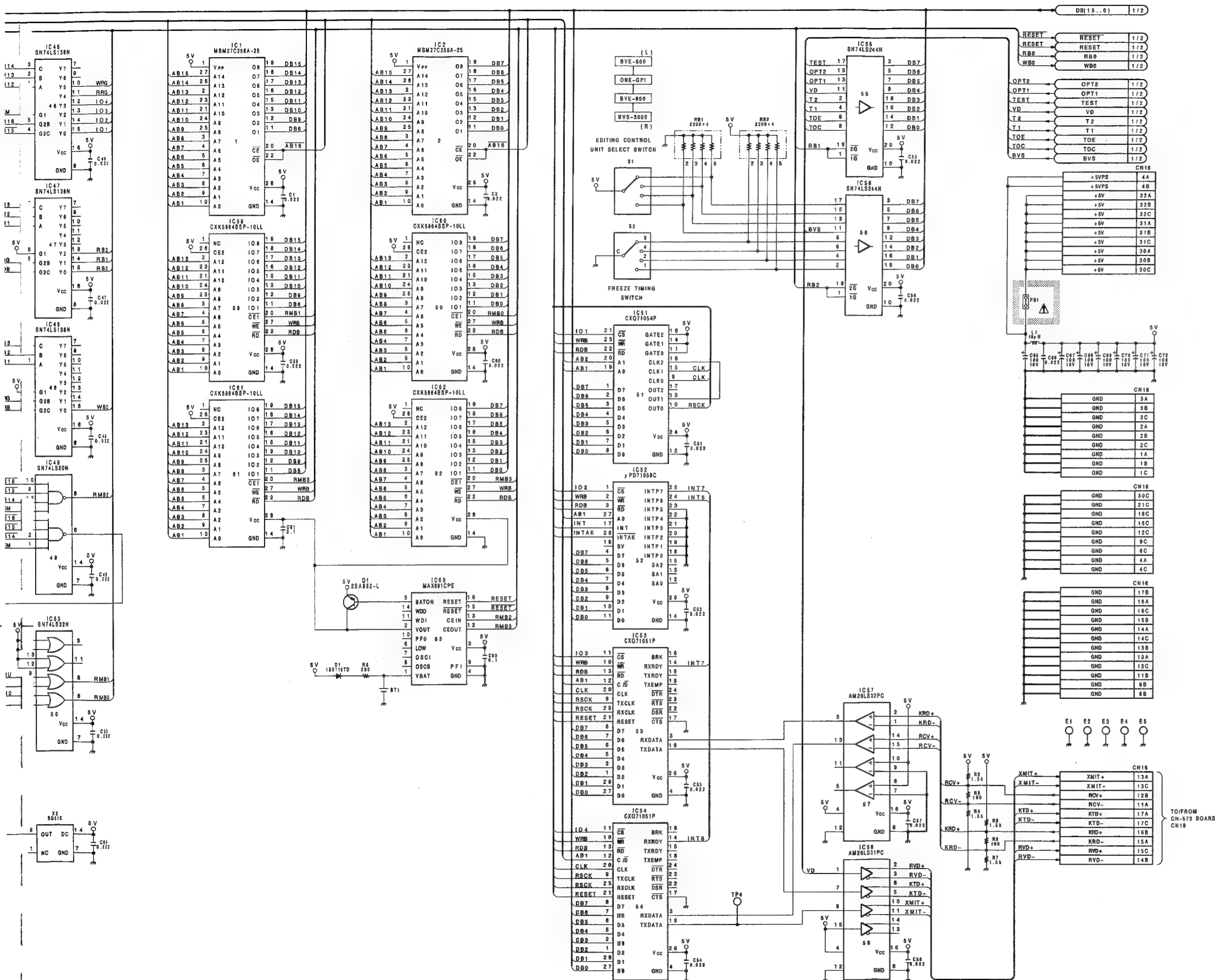




SY-172(2/2);Main CPU







SY-172(2/2) BOARD

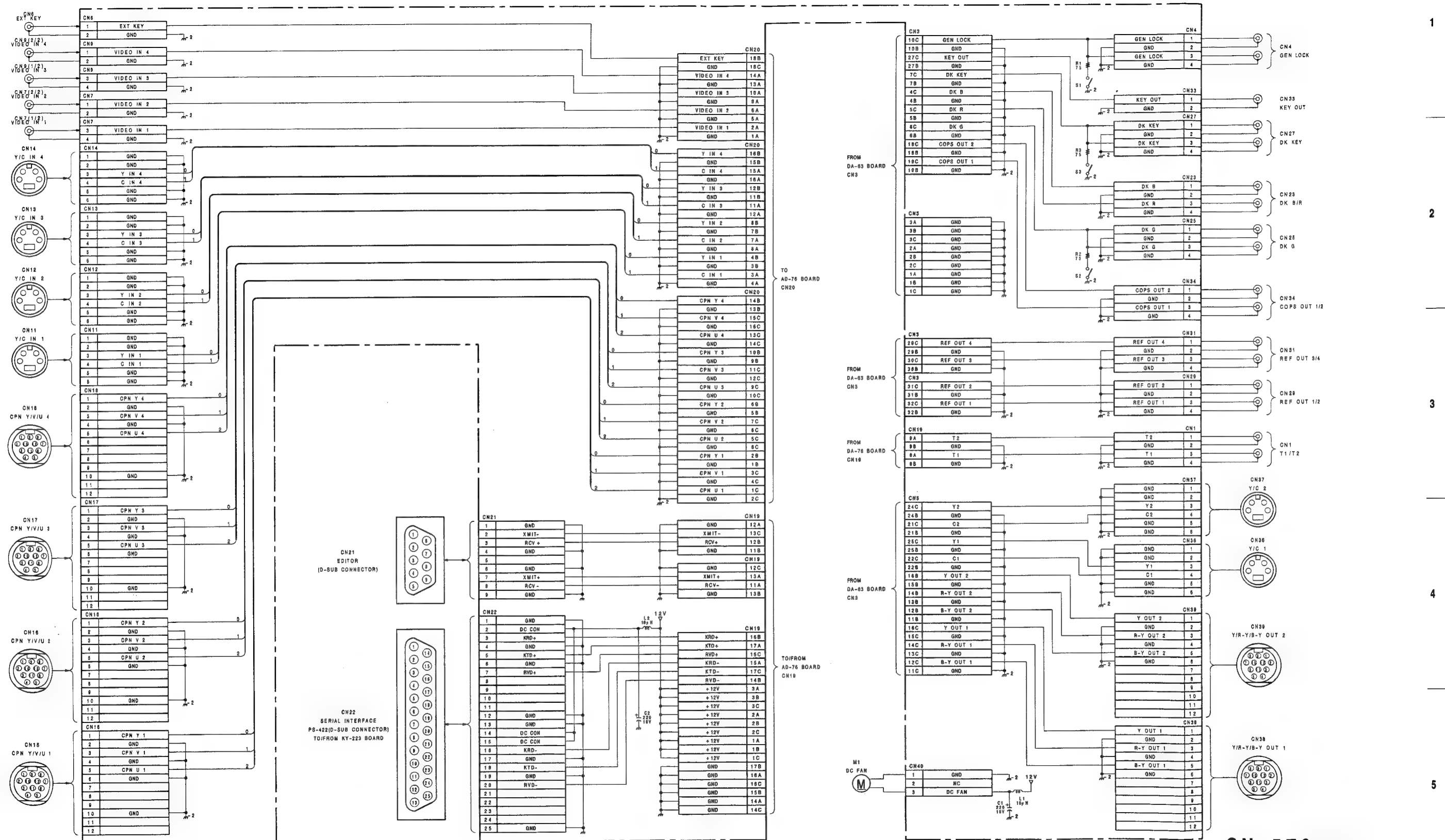
BOARD NO.1-644-597-11

DFS-500

DFS-500P



CN-573;Connector Board



**CN-573 BOARD**  
BOARD NO. 1-644-609-11  
DFS-500  
DFS-500P



# PROCESS UNIT MB-385 MB-385 PROCESS UNIT

## MB-385;Mother Board

DA-63

CN3	A	B	C
32		GND	REFOUT 1
31		GND	REFOUT 2
30		GND	REFOUT 3
29		GND	REFOUT 4
28			
27		GND	KEY
26			
25		GND	Y1
24		GND	Y2
23			
22		GND	C1
21		GND	C2
20			
19		GND	COPS OUT 1
18		GND	COPS OUT 2
17			
16		Y OUT 2	Y OUT 1
15		GND	GND
14		R-Y OUT 2	R-Y OUT 1
13		GND	GND
12		B-Y OUT 2	B-Y OUT 1
11		GND	GND
10		GND	GEW LOCK
9		GND	GND
8		GND	GND
7		GND	DK KEY
6		GND	DK 6
5		GND	DK R
4		GND	DK B
3		GND	GND
2		GND	GND
1		GND	GND

VE-25

CN6	A	B	C
32			
31			
30			
29			
28			
27			
26			
25			
24			
23	D 15	D 14	D 13
22	D 12	D 11	D 10
21	D 9	D 8	GND
20	D 7	D 6	D 5
19	D 4	D 3	D 2
18	D 1	D 0	GND
17		A 15	A 14
16	A 13	A 12	A 11
15	A 10	A 9	GND
14	A 8	A 7	A 6
13	A 5	A 4	A 3
12	A 2	A 1	GND
11			
10			
9	ARAM	ARAMW	GND
8	PA 3Y8	ORG 2	OPT 1
7	PA 3X8	OPT 2	
6	RESET		GND
5	RFLD	RVD	RHD
4	GND	RCK	GND
3	GND	GND	GND
2	GND	GND	GND
1	GND	GND	GND

MY-54

CN9	A	B	C
32	FGV 7	FGV 8	FGV 5
31	FGV 4	FGV 3	FGV 2
30	FGV 1	FGV 0	GND
29	FGV 7	FGV 6	FGV 5
28	FGV 4	FGV 3	FGV 2
27	FGV 1	FGV 0	GND
26	FGU 7	FGU 6	FGU 5
25	FGU 4	FGU 3	FGU 2
24	FGU 1	FGU 0	GND
23	D 15	D 14	D 13
22	D 12	D 11	D 10
21	D 9	D 8	GND
20	D 7	D 6	D 5
19	D 4	D 3	D 2
18	D 1	D 0	GND
17	A 18	A 15	A 14
16	A 13	A 12	A 11
15	A 10	A 9	GND
14	A 8	A 7	A 6
13	A 5	A 4	A 3
12	A 2	A 1	GND
11	A 0	UBE	
10	GND	IN KEY	GND
9			GND
8	MTRX		ORG 1
7			
6			GND
5	RFLD	RVD	RHD
4	GND	RCK	GND
3	GND	GND	GND
2	GND	GND	GND
1	GND	GND	GND

PU-78

CN12	A	B	C
32			
31			
30			
29			
28			
27			
26			
25			
24			
23	D 15	D 14	D 13
22	D 12	D 11	D 10
21	D 9	D 8	GND
20	D 7	D 6	D 5
19	D 4	D 3	D 2
18	D 1	D 0	GND
17	A 16	A 15	A 14
16	A 13	A 12	A 11
15	A 10	A 9	GND
14	A 8	A 7	A 6
13	A 5	A 4	A 3
12	A 2	A 1	GND
11			
10			
9	ARAM	ARAMW	GND
8	PA 3Y8	ORG 1	OPT 1
7	PA 3X8	OPT 2	
6			GND
5			RHD
4	GND	RCK	GND
3	GND	GND	GND
2	GND	GND	GND
1	GND	GND	GND

FM-29

CN15	A	B	C
32	FGV 7	FGV 8	FGV 5
31	FGV 4	FGV 3	FGV 2
30	FGV 1	FGV 0	GND
29	FGV 7	FGV 6	FGV 5
28	FGV 4	FGV 3	FGV 2
27	FGV 1	FGV 0	GND
26	FGU 7	FGU 6	FGU 5
25	FGU 4	FGU 3	FGU 2
24	FGU 1	FGU 0	GND
23	D 15	D 14	D 13
22	D 12	D 11	D 10
21	D 9	D 8	GND
20	D 7	D 6	D 5
19	D 4	D 3	D 2
18	D 1	D 0	GND
17	A 16	A 15	A 14
16	A 13	A 12	A 11
15	A 10	A 9	GND
14	A 8	A 7	A 6
13	A 5	A 4	A 3
12	A 2	A 1	GND
11			
10	GND	IN KEY	GND
9	ARAM	ARAMW	GND
8			ORG 1
7			
6			GND
5	RFLD	RVD	RHD
4	GND	RCK	GND
3	GND	GND	GND
2	GND	GND	GND
1	GND	GND	GND

CN2

A	B	C
32	D 16	D 14
31	D 12	D 11
30	D 9	D 8
29	D 7	D 6
28	D 4	D 3
27	D 1	D 0
26		A 7
25	A 6	A 4
24	A 2	A 1
23		ORG 2
22	BVS	OPT 2
21		OPT 1
20	RFLD	RVD
19	GND	RCK
18		
17		
16		
15		
14		
13		
12	OPY 7	OPY 6
11	OPY 4	OPY 3
10	OPY 1	OPY 0
9	OPV 7	OPV 6
8	OPV 4	OPV 3
7	OPV 1	OPV 0
6	OPU 7	OPU 6
5	OPU 4	OPU 3
4	OPU 1	OPU 0
3	OPK 7	OPK 6
2	OPK 4	OPK 3
1	OPK 1	OPK 0

CN6

A	B	C
32	GND	CEF 9
31		CEF 8
30	GND	CEF 4
29		CEF 3
28		PA 316
27	PA 315	PA 314
26	PA 312	PA 311
25	PA 309	GND
24	PA 307	PA 306
23	PA 304	PA 303
22	PA 301	PA 300
21		
20		
19		
18		
17		
16		
15		
14		
13		
12	DPY 7	DPY 6
11	DPY 4	DPY 3
10	DPY 1	DPY 0
9	OPV 7	OPV 6
8	OPV 4	OPV 3
7	OPV 1	OPV 0
6	OPU 7	OPU 6
5	OPU 4	OPU 3
4	OPU 1	OPU 0
3	OPK 7	OPK 6
2	OPK 4	OPK 3
1	OPK 1	OPK 0

CN8

A	B	C
32	GND	CEF 9
31	CEF 7	CEF 8
30	GND	CEF 4
29	CEF 2	CEF 1
28	PER 3	GND
27	PA 315	PA 314
26	PA 312	PA 311
25	PA 309	GND
24	PA 307	PA 306
23	PA 304	PA 303
22	PA 301	PA 300
21	PER 2	GND
20	PA 215	PA 214
19	PA 212	PA 211
18		
17	PA 207	PA 206
16	PA 204	PA 203
15	PA 201	PA 200
14	PER 1	GND
13	PA 115	PA 114
12	PA 112	PA 111
11	PA 109	GND
10	PA 107	PA 106
9	PA 104	PA 103
8	PA 101	PA 100
7	PER 0	GND
6	PA 015	PA 014
5	PA 012	PA 011
4	PA 009	GND
3	PA 007	PA 006
2	PA 004	PA 003
1	PA 001	PA 000

CN11

A	B	C
32	GND	CEF 9
31	CEF 7	CEF 8
30	GND	CEF 4
29	CEF 2	CEF 1
28	PER 3	GND
27	PA 315	PA 314
26	PA 312	PA 311
25	PA 309	GND
24	PA 307	PA 306
23	PA 304	PA 303
22	PA 301	PA 300
21	PER 2	GND
20	PA 215	PA 214
19	PA 212	PA 211
18		
17	PA 207	PA 206
16	PA 204	PA 203
15	PA 201	PA 200
14	PER 1	GND
13	PA 115	PA 114
12	PA 112	PA 111
11	PA 109	GND
10	PA 107	PA 106
9	PA 104	PA 103
8	PA 101	PA 100
7	PER 0	GND
6	PA 015	PA 014
5	PA 012	PA 011
4	PA 009	GND
3	PA 007	PA 006
2	PA 004	PA 003
1	PA 001	PA 000

CN14

A	B	C
32	GND	GND
31	SWFLD	SWVD
30	GND	SWCK
29	SWY 7	SWY 6
28	SWY 4	SWY 3
27	SWY 1	SWY 0
26	SWY 7	SWY 6
25	SWY 4	SWY 3
24	SWY 1	SWY 0
23	SWU 7	SWU 6
22	SWU 4	SWU 3
21	SWU 1	SWU 0
20		
19	SLCT KEY	GND
18		BUS CONT
17		
16		
15		
14		
13		
12		
11		
10		
9		
8		
7		
6		
5		
4		
3		
2		
1		

CN1

A	B	C
32	+5V	+5V
31	+5V	+5V
30	+5V	+5V
29	MEV 7	MEV 6
28	MEV 4	MEV 3
27	MEV 1	MEV 0
26	MEV 7	MEV 6
25	MEV 4	MEV 3
24	MEV 1	MEV 0
23	MEU 7	MEU 6
22	MEU 4	MEU 3
21	MEU 1	MEU 0
20	MEK 7	MEK 6
19	MEK 4	MEK 3
18	MEK 1	MEK 0
17	BGV 7	BGV 6
16	BGV 4	BGV 3
15	BGV 1	BGV 0
14	BGV 7	BGV 6
13	BGV 4	BGV 3
12	BGV 1	BGV 0
11	BGU 7	BGU 6
10	BGU 4	BGU 3
9	BGU 1	BGU 0
8		
7	NC(-12VPS)	GND
6	-12V	-12V
5	-12V	-12V
4	NC(+5VPS)	NC(+5VPS)
3	+12V	+12V
2	+12V	+12V
1	+12V	+12V

CN4

A	B	C
32	+5V	+5V
31	+5V	+5V
30	+5V	+5V
29	MEV 7	MEV 6
28	MEV 4	MEV 3
27	MEV 1	MEV 0
26	MEV 7	MEV 6
25	MEV 4	MEV 3
24	MEV 1	MEV 0
23	MEU 7	MEU 6
22	MEU 4	MEU 3
21	MEU 1	MEU 0
20	MEK 7	MEK 6
19	MEK 4	MEK 3
18	MEK 1	MEK 0
17	PL 25	PL 22
16	PL 20	PL 13
15	PL 11	PL 10
14	TX 12	TX 11
13	TX 9	TX 8
12	GND	TX 6
11	TX 4	TX 3
10	TX 1	TX 0
9		
8		
7	NC(-12VPS)	-12V
6	-12V	-12V
5	-12V	-12V
4	NC(+5VPS)	NC(+5VPS)
3	+12V	+12V
2	+12V	+12V
1	+12V	+12V

CN7

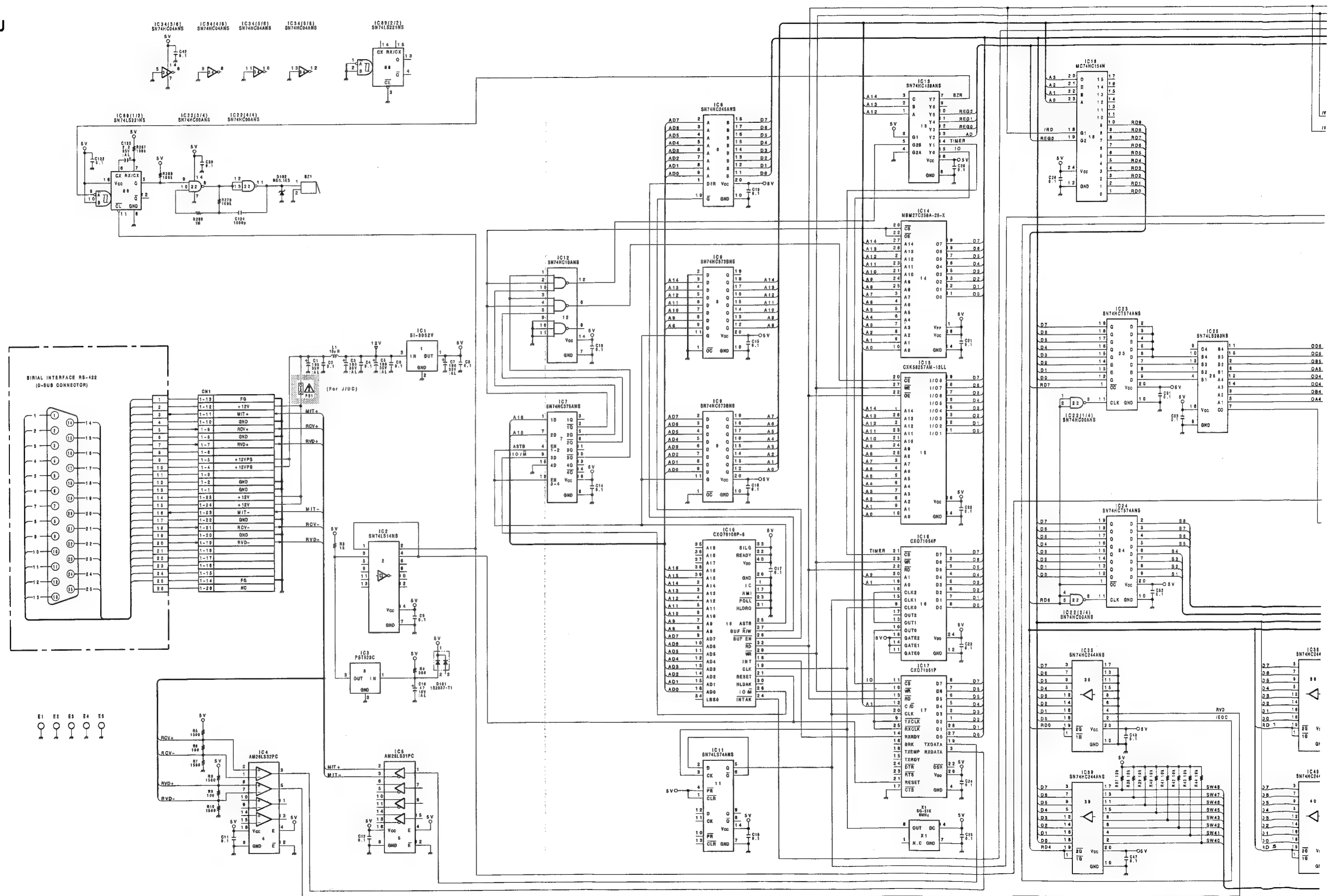


AD-76

[illegible]



**KY-223(1/3);CPU**



**A**

B

**C**

**D**

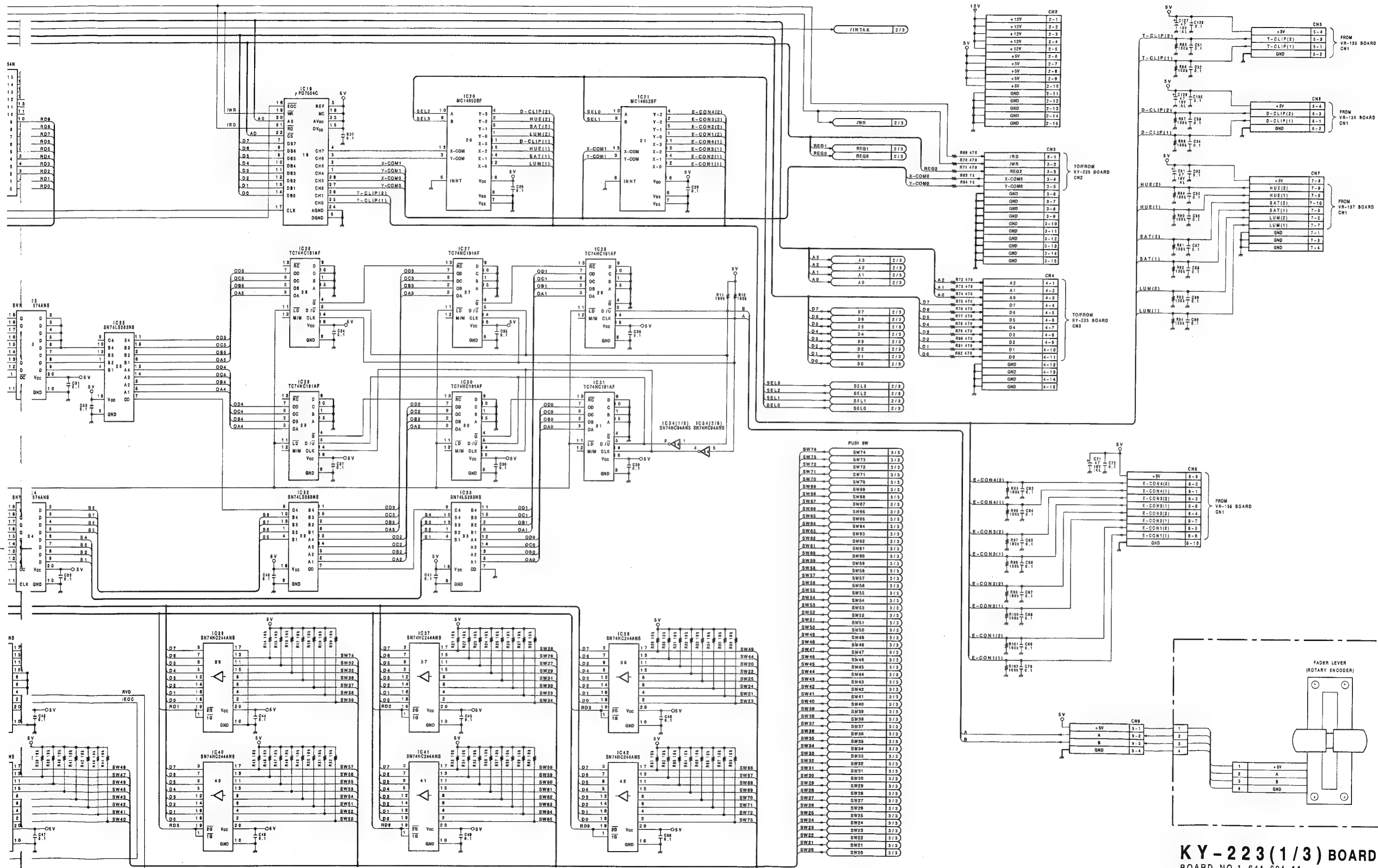
**E****F**

G

H



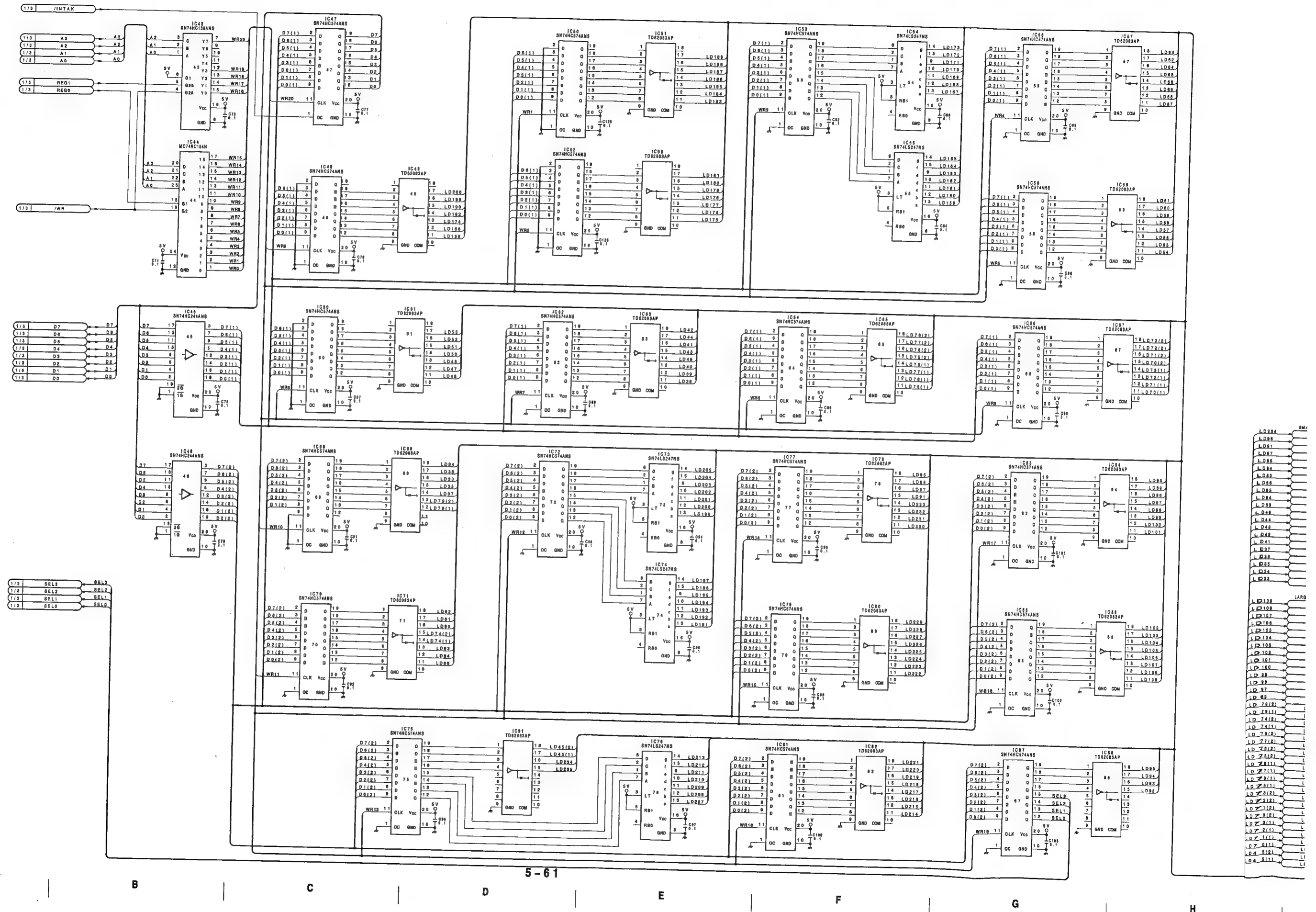
# CONTROL PANEL KY-223(1/3) KY-223(1/3) CONTROL PANEL



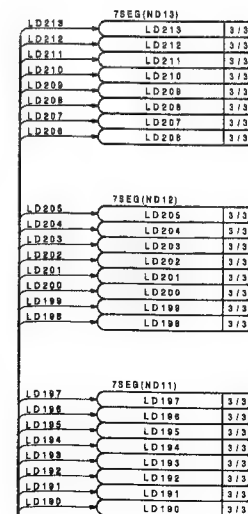
**KY-223(1/3) BOARD**  
BOARD NO.1-644-604-11  
DFS-500  
DFS-500P



**KY-223(2/3);LED Driver**



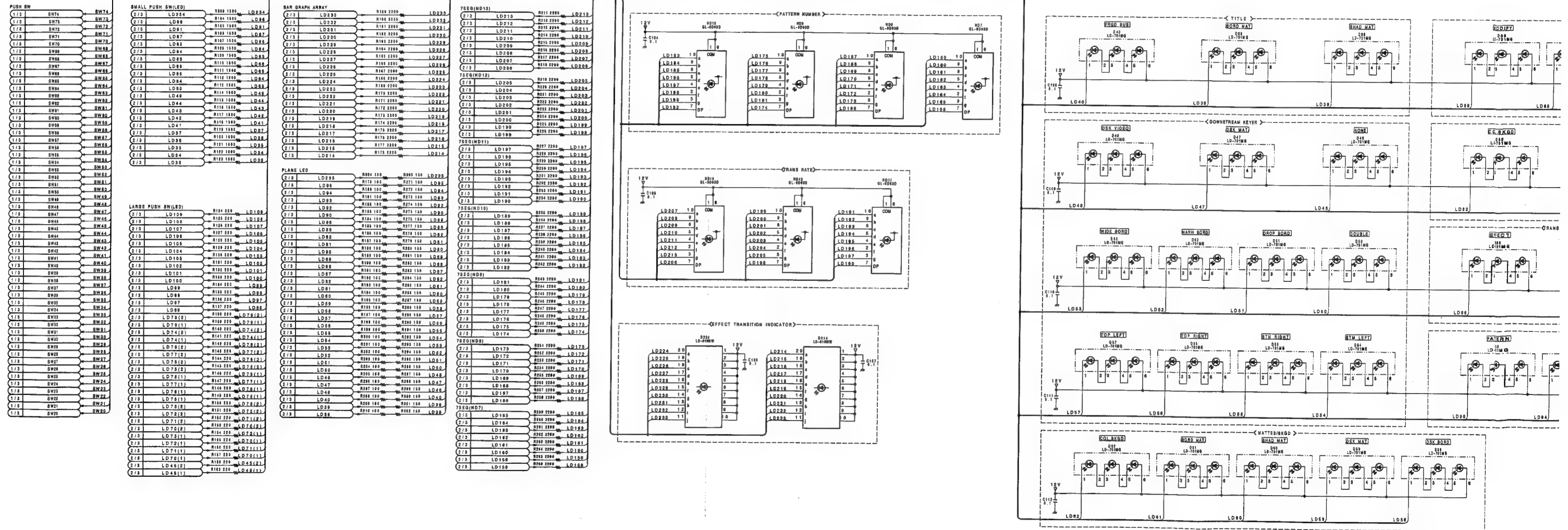




**KY-223(2/3) BOAF**  
BOARD NO.1-644-604-11  
DFS-500  
DFS-500P

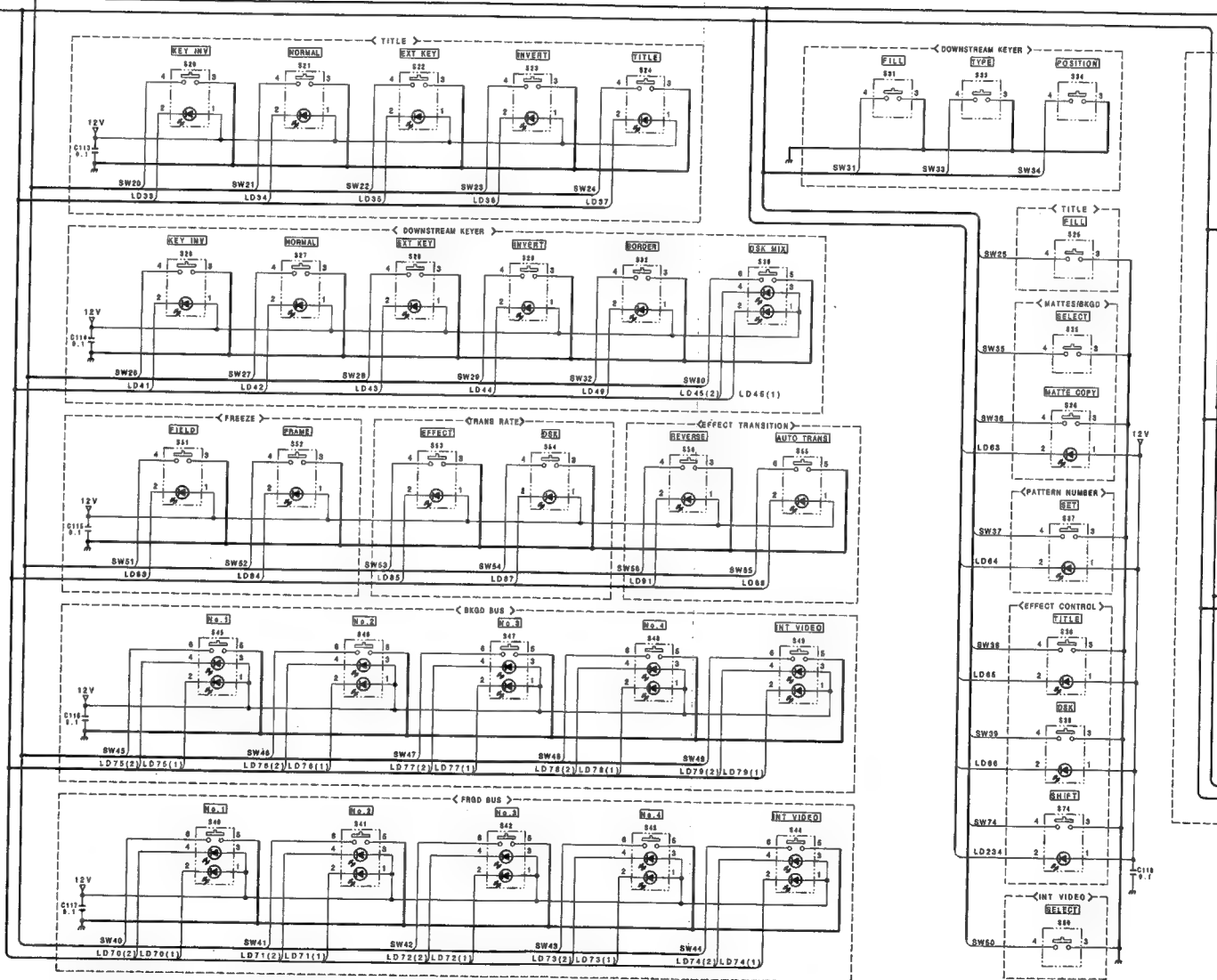


KY-223(3/3);LED & Switch





**KY-223(3/3) CONTROL PANEL**

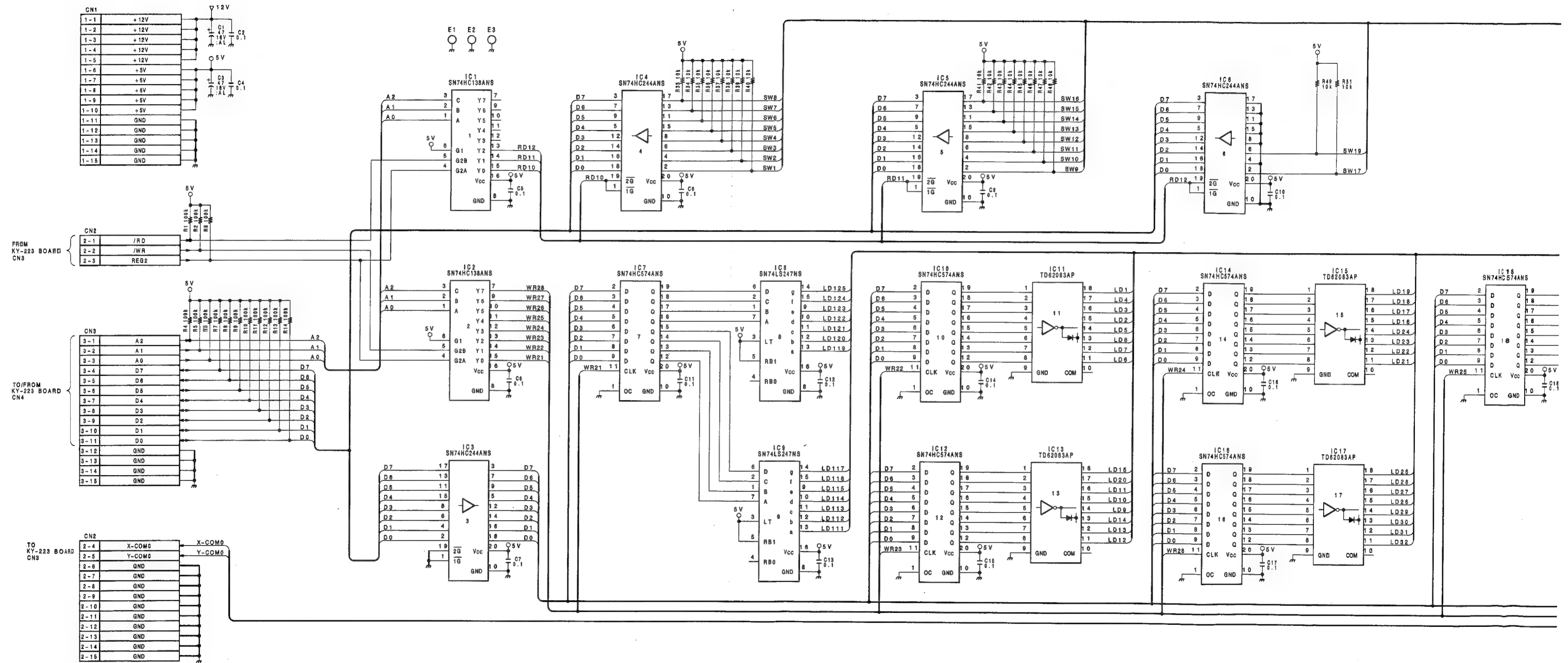


BOARD NO.1-644-604-11  
DFS-500  
DFS-500P



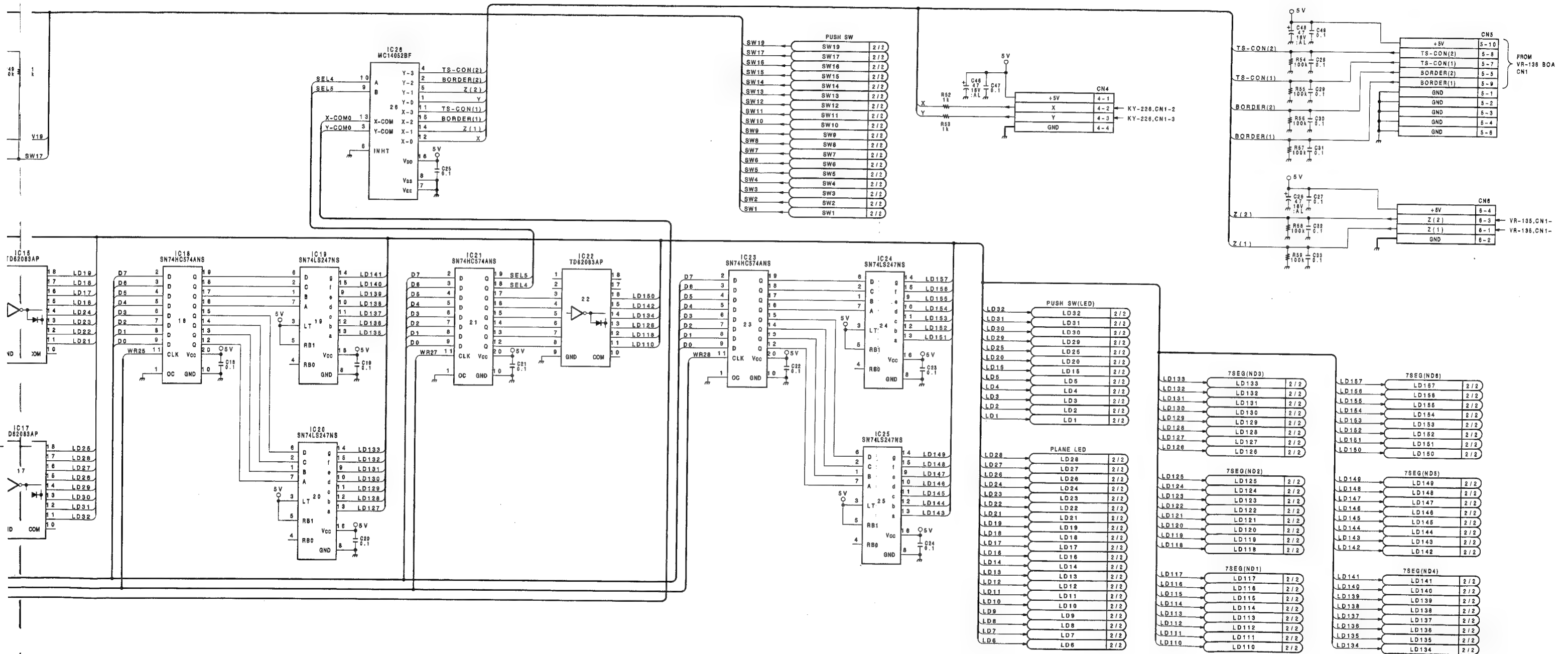
CONTROL PANEL KY-225(1/2) KY-225(1/2) CONTROL PANEL

**KY-225(1/2); LED Driver**





CONTROL PANEL KY-225(1/2) KY-225(1/2) CONTROL PANEL



**KY-225(1/2) BOARD**  
BOARD NO.1-644-605-11  
DFS-500  
DFS-500P



KY-225(2/2);LED & Switch

PUSH SW		
1/2	SW19	SW19
1/2	SW17	SW17
1/2	SW16	SW16
1/2	SW15	SW15
1/2	SW14	SW14
1/2	SW13	SW13
1/2	SW12	SW12
1/2	SW11	SW11
1/2	SW10	SW10
1/2	SW9	SW9
1/2	SW8	SW8
1/2	SW7	SW7
1/2	SW6	SW6
1/2	SW5	SW5
1/2	SW4	SW4
1/2	SW3	SW3
1/2	SW2	SW2
1/2	SW1	SW1

PUSH SW(LED)		
1/2	LD32	LD32
1/2	LD31	LD31
1/2	LD30	LD30
1/2	LD29	LD29
1/2	LD28	LD28
1/2	LD27	LD27
1/2	LD26	LD26
1/2	LD25	LD25
1/2	LD24	LD24
1/2	LD23	LD23
1/2	LD22	LD22
1/2	LD21	LD21
1/2	LD20	LD20
1/2	LD19	LD19
1/2	LD18	LD18
1/2	LD17	LD17
1/2	LD16	LD16
1/2	LD15	LD15
1/2	LD14	LD14
1/2	LD13	LD13
1/2	LD12	LD12
1/2	LD11	LD11
1/2	LD10	LD10
1/2	LD9	LD9
1/2	LD8	LD8
1/2	LD7	LD7
1/2	LD6	LD6

7SEG(ND6)		
1/2	LD157	LD157
1/2	LD156	LD156
1/2	LD155	LD155
1/2	LD154	LD154
1/2	LD153	LD153
1/2	LD152	LD152
1/2	LD151	LD151
1/2	LD150	LD150

7SEG(ND5)		
1/2	LD149	LD149
1/2	LD148	LD148
1/2	LD147	LD147
1/2	LD146	LD146
1/2	LD145	LD145
1/2	LD144	LD144
1/2	LD143	LD143
1/2	LD142	LD142

7SEG(ND4)		
1/2	LD141	LD141
1/2	LD140	LD140
1/2	LD139	LD139
1/2	LD138	LD138
1/2	LD137	LD137
1/2	LD136	LD136
1/2	LD135	LD135
1/2	LD134	LD134

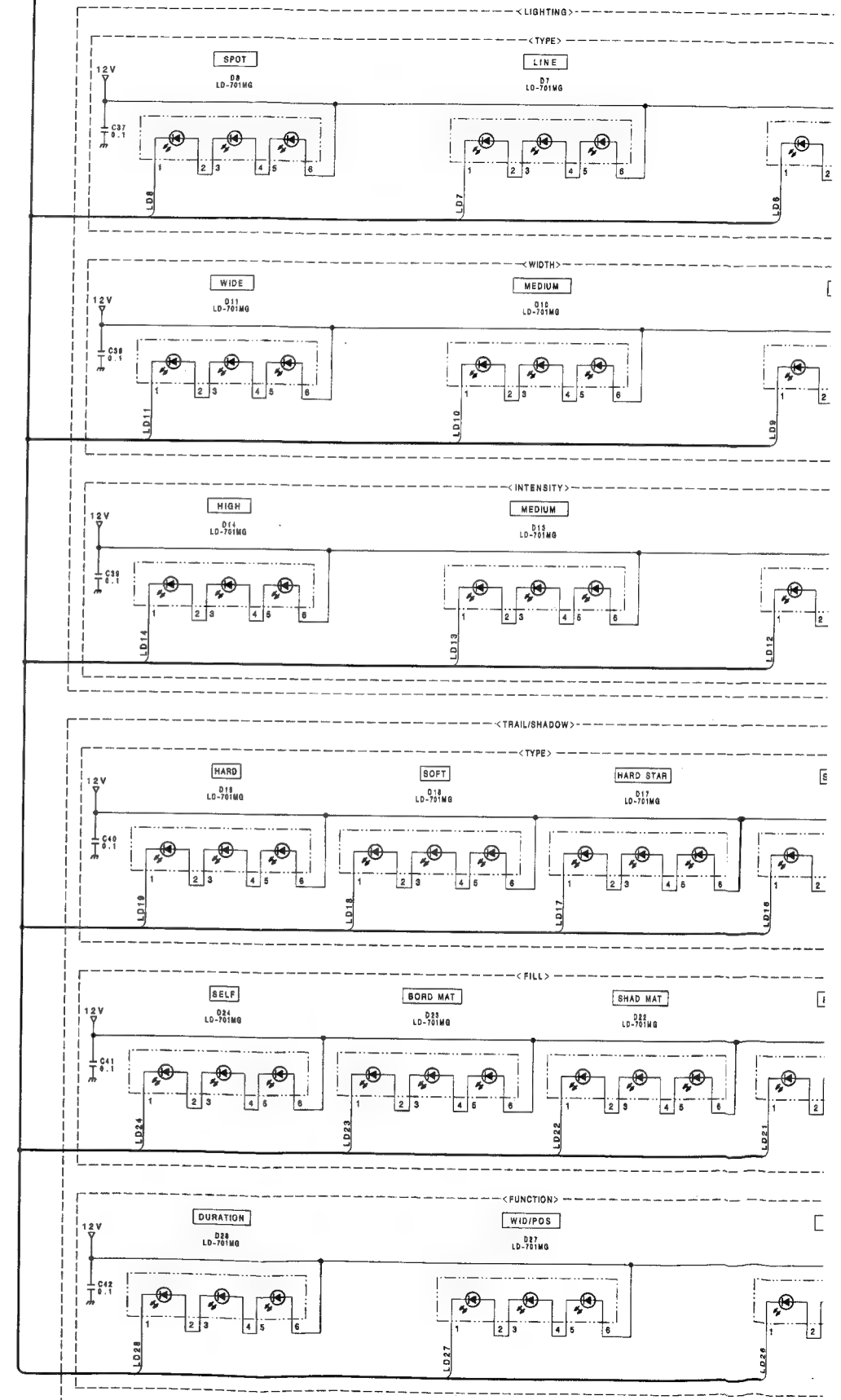
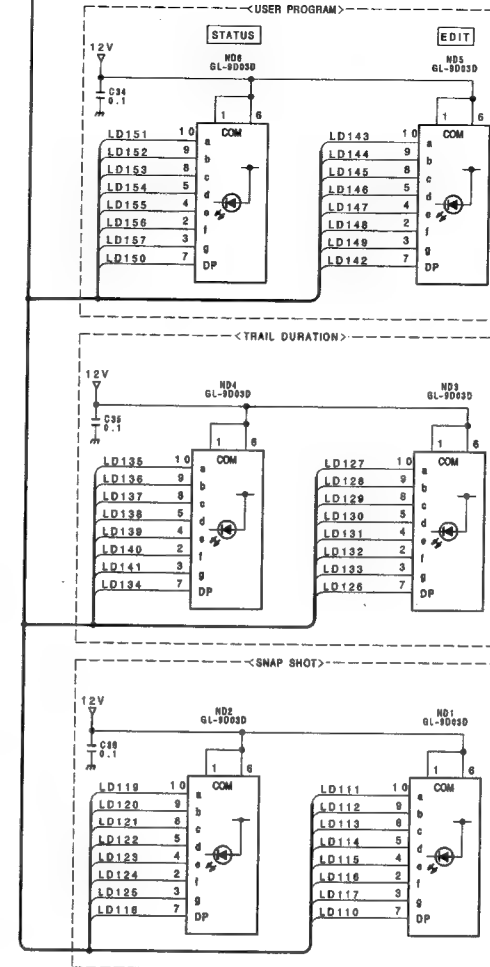
7SEG(ND3)		
1/2	LD133	LD133
1/2	LD132	LD132
1/2	LD131	LD131
1/2	LD130	LD130
1/2	LD129	LD129
1/2	LD128	LD128
1/2	LD127	LD127
1/2	LD126	LD126

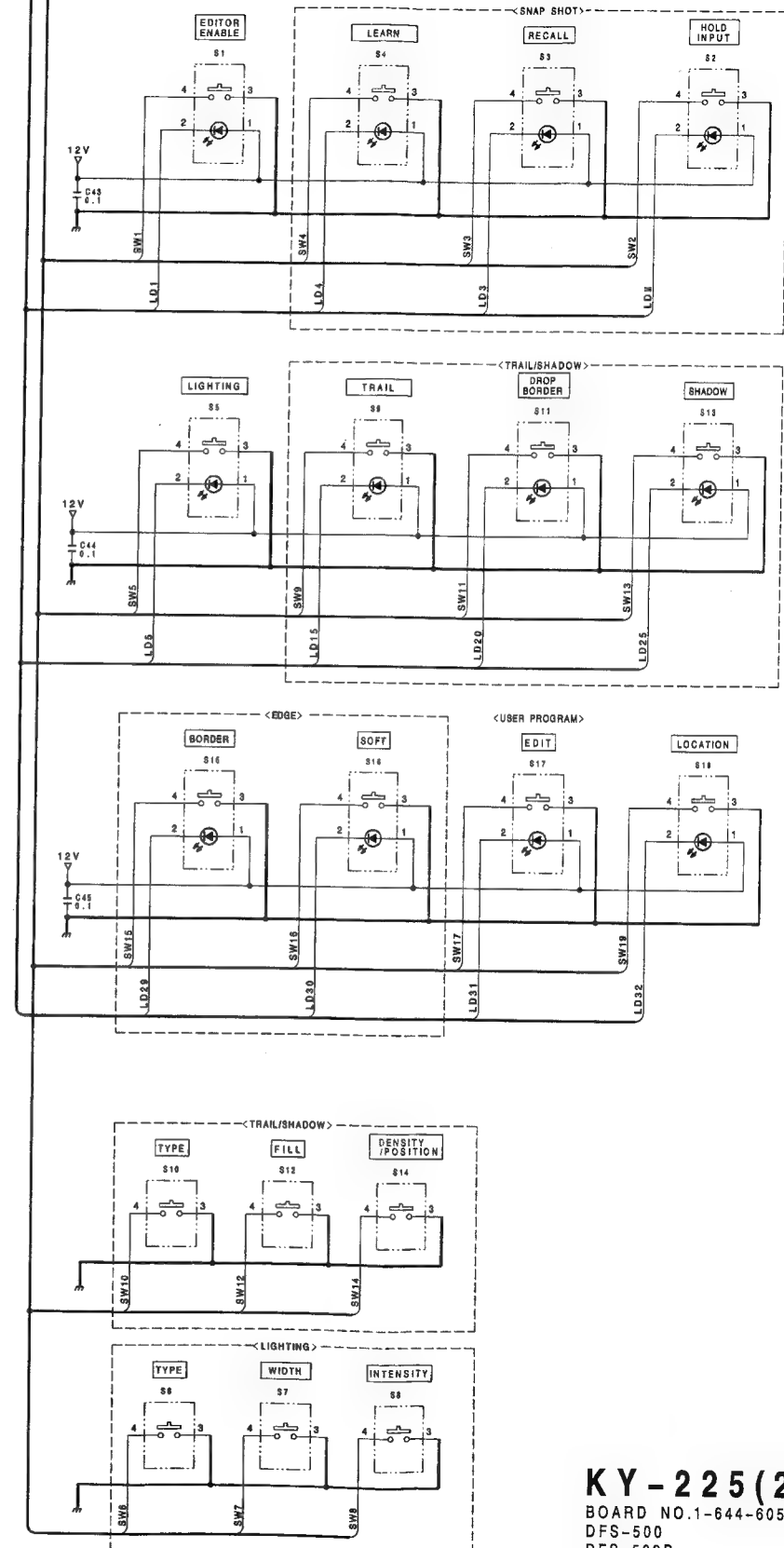
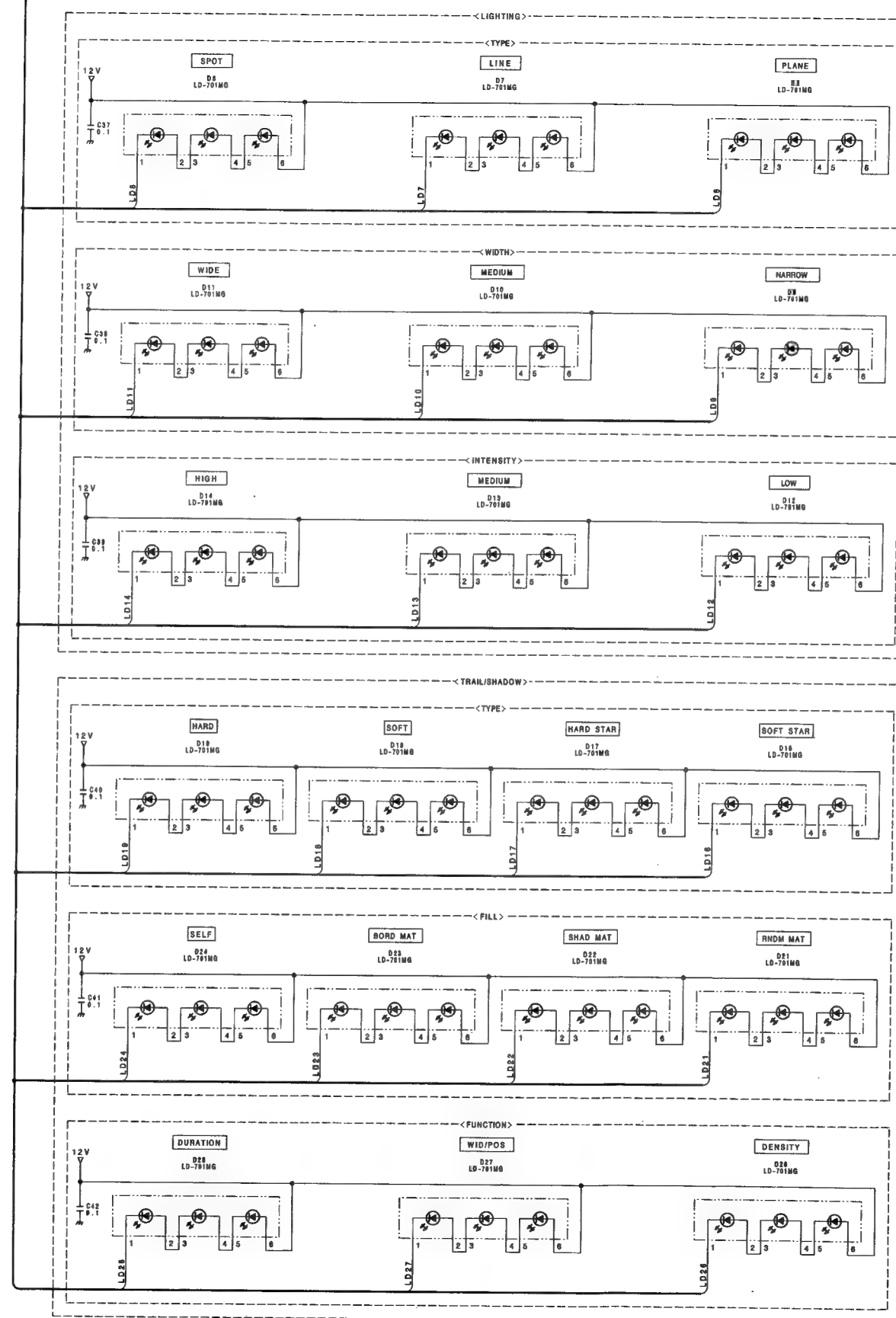
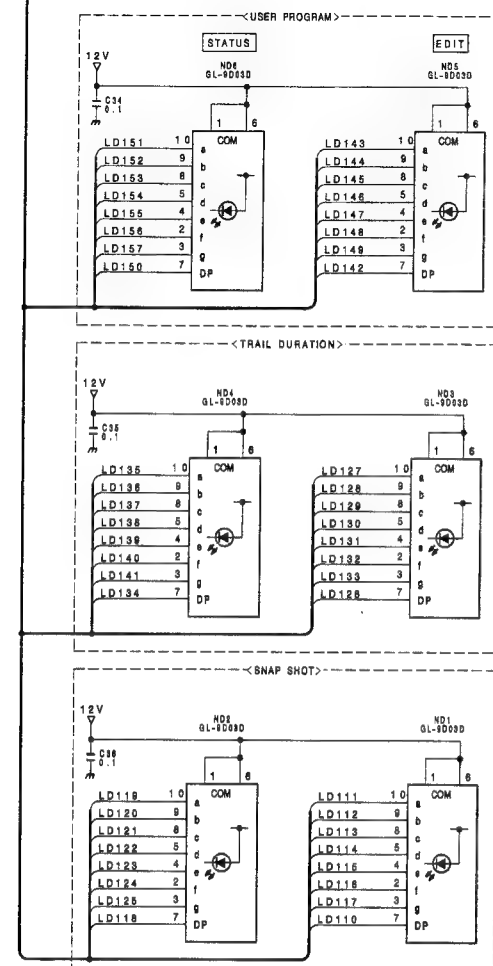
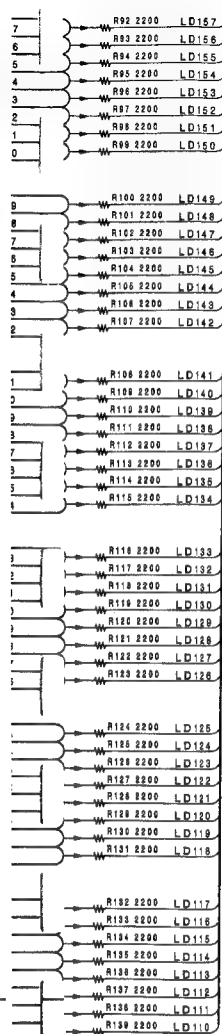
7SEG(ND2)		
1/2	LD125	LD125
1/2	LD124	LD124
1/2	LD123	LD123
1/2	LD122	LD122
1/2	LD121	LD121
1/2	LD120	LD120
1/2	LD119	LD119
1/2	LD118	LD118

7SEG(ND1)		
1/2	LD117	LD117
1/2	LD116	LD116
1/2	LD115	LD115
1/2	LD114	LD114
1/2	LD113	LD113
1/2	LD112	LD112
1/2	LD111	LD111
1/2	LD110	LD110



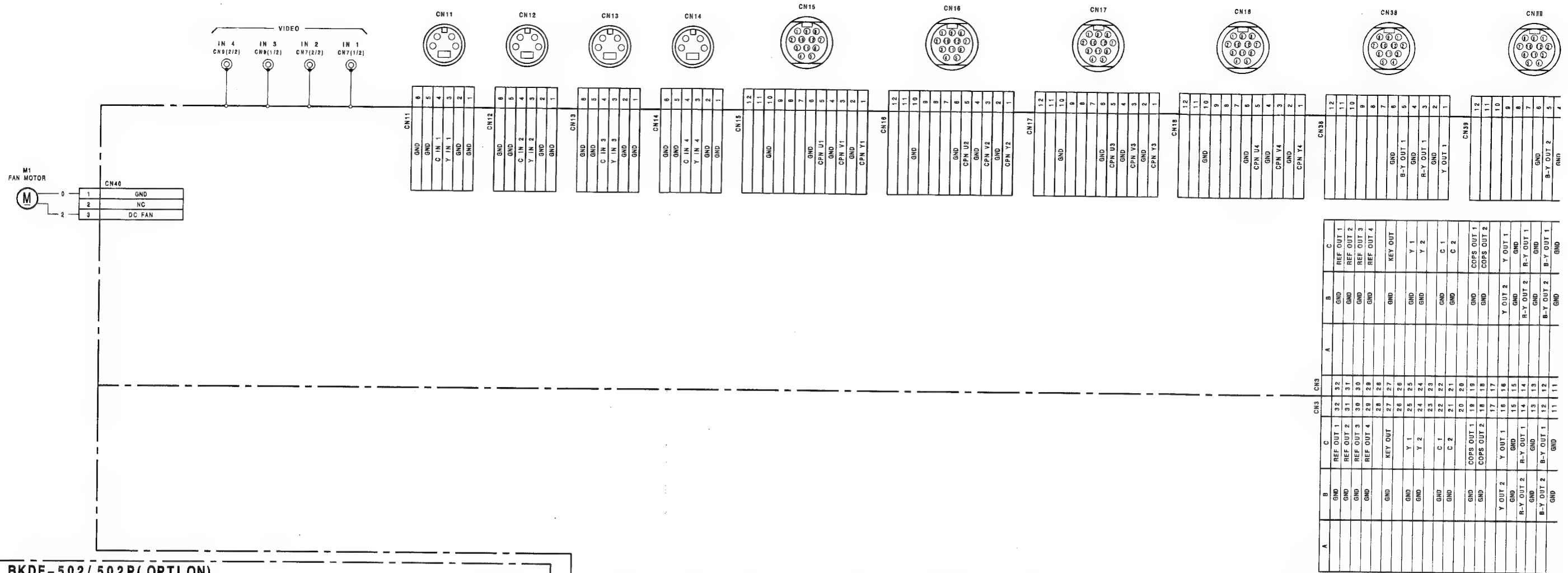




**KY-225(2/2) BOARD**  
 BOARD NO.1-644-605-11  
 DFS-500  
 DFS-500P



PROCESS UNIT FRAME WIRING(1/3)    FRAME WIRING(1/3) PROCESS UNIT



**BKDF-502/502P(OPTION)**

## DK-5 BOARD

[illegible]

		CHSD			
		1	2	3	4
+5W	DKV5	1	2	1	2
+5W	DKV4	2	2	2	2
+5W	DKV3	3	2	3	3
+5W	DKV2	4	2	4	4
GND	DKV1	5	3	5	5
GND	DKV0	6	3	6	6
GND	GND	7	3	7	3
GND	GND	8	3	8	3
GND	GND	9	3	9	3
VSEL1	DKU6	10	3	10	3
VSEL1	VSEL2	11	3	11	3
DDL3	DKU4	12	3	12	3
DDL2	DKU3	13	3	13	3
DDL1	DKU2	14	3	14	3
DDL1	DKU1	15	4	15	4
DKY7	DKU0	16	4	16	4
DKV6	GND	17	4	17	4
DKV5	DKK7	18	4	18	4
DKV4	DKK6	19	4	19	4
DKV3	DKK5	20	4	20	4
DKV2	DKK4	21	4	21	4
DKV1	DKK3	22	4	22	4
DKV0	DKK2	23	4	23	4
GND	DKK1	24	4	24	4
GND	DKK0	25	4	25	4
DKV7	GND	26	5	26	5
DKV6	DKK6	27	5	27	5

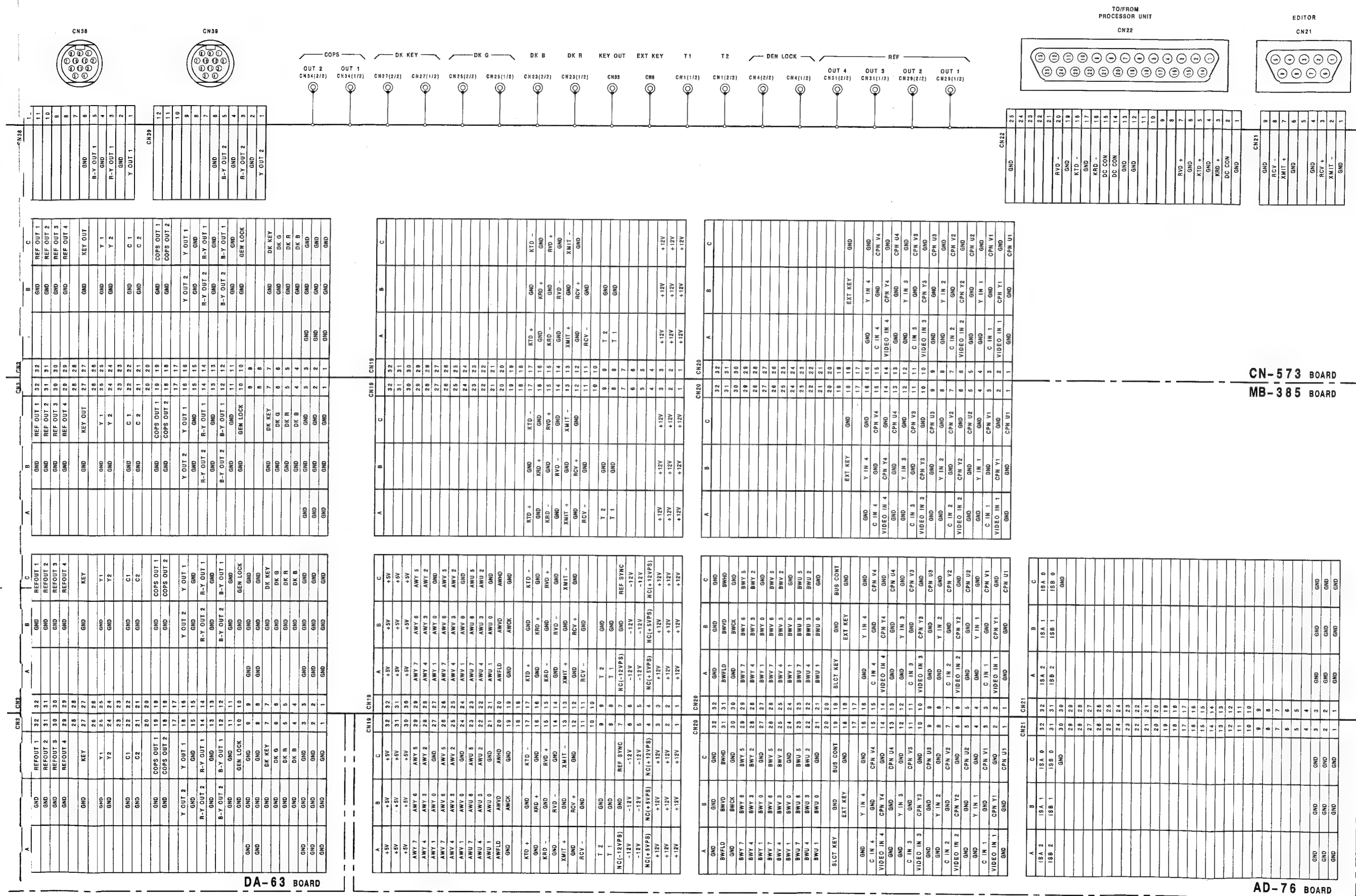
	A	B	C	DNI	A	B	C
	+5V	+5V	+5V	32	32	+5V	+5V
	+5V	+5V	+5V	31	31	+5V	+5V
	+5V	+5V	+5V	30	30	+5V	+5V
MEY 7	MEY 6	MEY 6	MEY 5	28	29	MEY 7	MEY 6
MEY 4	MEY 3	MEY 3	MEY 2	28	28	MEY 4	MEY 2
MEY 1	MEY 0	GND	GND	27	27	MEY 1	GND
	MEY 6	MEY 6	MEY 5	27	26	MEY 6	MEY 5
	MEY 3	MEY 3	MEY 2	25	25	MEY 3	MEY 2
MEV 1	MEV 0	GND	GND	24	24	MEV 0	GND
	MEU 7	MEU 6	MEU 5	23	23	MEU 6	MEU 5
	MEU 4	MEU 3	MEU 2	22	22	MEU 4	MEU 2
	MEU 1	MEU 0	GND	21	21	MEU 1	GND
MEK 7	MEK 6	MEK 5	MEK 5	20	20	MEK 6	MEK 5
	MEK 3	MEK 3	MEK 2	19	19	MEK 4	MEK 2
MEK 1	MEK 0	GND	GND	18	18	MEK 1	GND
	BGV 7	BGV 6	BGV 5	17	17	BGV 7	BGV 5
	BGV 4	BGV 3	BGV 2	16	16	BGV 4	BGV 2
	BGV 1	BGV 0	GND	15	15	BGV 1	GND
	BGV 6	BGV 6	BGV 5	14	14	BGV 7	BGV 5
	BGV 4	BGV 3	BGV 2	13	13	BGV 4	BGV 2
	BGV 1	BGV 0	GND	12	12	BGV 1	GND
	BGU 7	BGU 6	BGU 5	11	11	BGU 7	BGU 5
	BGU 4	BGU 3	BGU 2	10	10	BGU 4	BGU 2
	BGU 1	BGU 0	GND	9	9	BGU 1	GND
				8	8		
NC(-12VPS)	GND	GND	REF SYNC	7	7	NC(-12VPS)	REF SYNC
	-12V	-12V	-12V	6	6	-12V	-12V
	-12V	-12V	-12V	5	5	-12V	-12V
NC(-5VPS)	NC(+5VPS)	NC(+5VPS)	NC(+5VPS)	4	4	NC(+5VPS)	NC(+12VPS)
	+12V	+12V	+12V	3	3	+12V	+12V
	+12V	+12V	+12V	2	2	+12V	+12V
	+12V	+12V	+12V	1	1	+12V	+12V

[illegible]

A		B		C		CR3	
	GND	GND	REFOUT 1	32	32		
	GND	GND	REFOUT 2	31	31		REFOUT 1
	GND	GND	REFOUT 3	30	30		REFOUT 2
	GND	GND	REFOUT 4	29	29		REFOUT 3
				28	28		REFOUT 4
	GND	GND	KEY	27	27		KEY
				26	26		
	GND	GND	Y1	25	25		Y1
	GND	GND	Y2	24	24		Y2
				23	23		
	GND	GND	C1	22	22		C1
	GND	GND	C2	21	21		C2
				20	20		
	GND	GND	COPS OUT 1	19	19		COPS OUT 1
	GND	GND	COPS OUT 2	18	18		COPS OUT 2
				17	17		
	Y OUT 2	Y OUT 1	Y OUT 1	16	16		Y OUT 2
	GND	GND	GND	15	15		GND
	R-Y OUT 2	R-Y OUT 1	R-Y OUT 1	14	14		R-Y OUT 2
	GND	GND	GND	13	13		GND
	B-Y OUT 2	B-Y OUT 1	B-Y OUT 1	12	12		B-Y OUT 2
	GND	GND	GND	11	11		GND



PROCESS UNIT FRAME WIRING(1/3)    FRAME WIRING(1/3) PROCESS UNIT





## BKDF-501/501P(OPTION)

[illegible][illegible][illegible]**VE-25 BOARD**[illegible]

A		B		C		CIN		A		B		C	
GND	CEF 8	GND	CEF 9	32	32	GND	CEF 9	GND	CEF 9	32	32	GND	CEF 8
CEF 7	CEF 6	CEF 5	CEF 5	31	31	CEF 7	CEF 6	CEF 7	CEF 6	31	31	CEF 7	CEF 5
GND	CEF 4	GND	CEF 3	30	30	GND	CEF 4	GND	CEF 4	30	30	GND	CEF 3
CEF 2	CEF 1	CEF 0	CEF 0	29	29	CEF 2	CEF 1	CEF 2	CEF 1	29	29	CEF 2	CEF 0
PER 3	GND	PA 316	PA 316	28	28	PER 3	GND	PA 316	PA 316	28	28	PER 3	PA 316
PA 315	PA 314	PA 313	PA 313	27	27	PA 315	PA 314	PA 313	PA 314	27	27	PA 313	PA 313
PA 312	PA 311	PA 310	PA 310	26	26	PA 312	PA 311	PA 310	PA 311	26	26	PA 310	PA 310
PA 309	GND	PA 308	PA 308	25	25	PA 309	GND	PA 308	PA 309	25	25	PA 308	PA 308
PA 307	PA 306	PA 305	PA 305	24	24	PA 307	PA 306	PA 305	PA 306	24	24	PA 305	PA 305
PA 304	PA 303	PA 302	PA 302	23	23	PA 304	PA 303	PA 302	PA 303	23	23	PA 302	PA 302
PA 301	PA 300	GND	PA 301	22	22	PA 301	PA 300	GND	PA 300	22	22	PA 300	PA 302
PER 2	PER 2	PA 216	PA 216	21	21	PER 2	GND	PA 216	PA 216	21	21	PER 2	GND
PA 215	PA 214	PA 213	PA 213	20	20	PA 215	PA 214	PA 213	PA 214	20	20	PA 213	PA 213
PA 212	PA 211	PA 210	PA 210	19	19	PA 212	PA 211	PA 210	PA 211	19	19	PA 210	PA 210
GND	GND	PA 209	PA 209	18	18	PA 209	GND	PA 208	GND	18	18	PA 208	PA 208
PA 207	PA 206	PA 205	PA 205	17	17	PA 207	PA 206	PA 205	PA 206	17	17	PA 205	PA 205
PA 204	PA 203	PA 202	PA 202	16	16	PA 204	PA 203	PA 202	PA 203	16	16	PA 202	PA 202
PA 201	PA 200	GND	GND	15	15	PA 201	PA 200	GND	PA 200	15	15	PA 200	GND
PER 1	PER 1	PA 116	PA 116	14	14	PER 1	GND	PA 116	PA 116	14	14	PER 1	PA 116
PA 115	PA 114	PA 113	PA 113	13	13	PA 115	PA 114	PA 113	PA 114	13	13	PA 113	PA 113
PA 112	PA 111	PA 110	PA 110	12	12	PA 112	PA 111	PA 110	PA 111	12	12	PA 110	PA 110
PA 109	GND	PA 108	PA 108	11	11	PA 109	GND	PA 108	PA 108	11	11	PA 108	PA 108
PA 107	PA 106	PA 105	PA 105	10	10	PA 107	PA 106	PA 105	PA 106	10	10	PA 105	PA 105

[illegible]

A	B	C	A	B	C
PA 000	CEP 9	CEP 8	32	32	GND
CEP 7	CEP 6	CEP 5	31	31	CEP 7
GND	CEP 4	CEP 3	30	30	GND
CEP 2	CEP 1	CEP 0	29	29	CEP 4
PER 3	GND	PA 316	28	28	PER 3
PA 316	PA 314	PA 313	27	27	PA 314
PA 312	PA 311	PA 310	26	26	PA 311
PA 309	GND	PA 308	25	25	GND
PA 307	PA 300	PA 305	24	24	PA 308
PA 304	PA 303	PA 302	23	23	PA 304
PA 301	PA 300	GND	22	22	PA 301
PER 2	GND	PA 316	21	21	PER 2
PA 215	PA 214	PA 213	20	20	PA 215
PA 212	PA 211	PA 210	19	19	PA 212
PA 208	GND	PA 208	18	18	GND
PA 207	PA 206	PA 203	17	17	PA 209
PA 204	PA 203	PA 202	16	16	PA 207
PA 201	PA 200	GND	15	15	PA 204
PER 1	GND	PA 116	14	14	PER 1
PA 116	PA 114	PA 113	13	13	PA 115
PA 112	PA 111	PA 110	12	12	PA 114
PA 109	GND	PA 108	11	11	PA 111
PA 107	PA 106	PA 105	10	10	GND
PA 104	PA 103	PA 102	9	9	PA 109
PA 101	PA 100	GND	8	8	PA 106
PER 0	GND	PA 018	7	7	PA 103
PA 015	PA 014	PA 013	6	6	PA 100
PA 012	PA 011	PA 010	5	5	GND
PA 009	GND	PA 008	4	4	PA 015
PA 007	PA 006	PA 005	3	3	PA 011
PA 004	PA 003	PA 002	2	2	PA 007
PA 001	PA 000	GND	1	1	PA 004

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A	B	C	UNIT	UNIT	A	B	C
+5V	+5V	+5V	32	32	+5V	+5V	+5V
+5V	+5V	+5V	31	31	+5V	+5V	+5V
+5V	+5V	+5V	30	30	+5V	+5V	+5V
AWY 7	AWY 8	AWY 9	29	29	AWY 7	AWY 8	AWY 9
AWY 3	AWY 2	AWY 1	28	28	AWY 4	AWY 3	AWY 2
AWY 4	AWY 0	GND	27	27	AWY 1	AWY 0	GND
AWY 7	AWY 8	AWY 5	26	26	AWY 7	AWY 8	AWY 5
AWY 3	AWY 2	AWY 4	25	25	AWY 4	AWY 3	AWY 2
AWY 0	GND	GND	24	24	AWY 1	AWY 0	GND
AWY 7	AWY 8	AWY 5	23	23	AWY 7	AWY 8	AWY 5
AWY 3	AWY 2	AWY 4	22	22	AWY 4	AWY 3	AWY 2
AWY 0	GND	GND	21	21	AWY 1	AWY 0	GND
AWY 7	AWY 8	AWY 5	20	20	AWY 7	AWY 8	AWY 5
AWY 3	AWY 2	AWY 4	19	19	AWY 4	AWY 3	AWY 2
AWY 0	GND	GND	18	18	AWY 1	AWY 0	GND
BGY 7	BGY 8	BGY 5	17	17	BGY 7	BGY 8	BGY 5
BGY 3	BGY 2	BGY 1	16	16	BGY 4	BGY 3	BGY 2
BGY 1	GND	GND	15	15	BGY 0	GND	GND
BGY 7	BGY 8	BGY 5	14	14	BGY 7	BGY 8	BGY 5
BGY 3	BGY 2	BGY 1	13	13	BGY 4	BGY 3	BGY 2
BGY 0	GND	GND	12	12	BGY 1	BGY 0	GND
BGY 7	BGY 8	BGY 5	11	11	BGY 7	BGY 8	BGY 5
BGY 3	BGY 2	BGY 1	10	10	BGY 4	BGY 3	BGY 2
BGY 0	GND	GND	9	9	BGY 1	BGY 0	GND
CG(+12VPS)	CG(+5VPS)	CG(+12VPS)	7	7	NC(-12VPS)		
-12V	-12V	-12V	6	6	-12V	-12V	-12V
NC(+5VPS)	NC(+12VPS)	NC(+5VPS)	5	5	-12V	-12V	-12V
+12V	+12V	+12V	4	4	NC(+5VPS)	NC(+12VPS)	NC(+5VPS)
+12V	+12V	+12V	3	3	+12V	+12V	+12V
+12V	+12V	+12V	2	2	+12V	+12V	+12V
+12V	+12V	+12V	1	1	+12V	+12V	+12V

A		B		C		CN14		CN14	
GND	GND	GND	GND	GND	GND	32	32		
BWFLD	BWFLD	BWFLD	BWFLD	BWFLD	BWFLD	31	31		
GND	GND	BWCK	BWCK	GND	BWCK	30	30		
BWY 7	BWY 7	BWY 6	BWY 6	GND	BWY 6	29	29		
BWY 4	BWY 4	BWY 3	BWY 3	BWY 7	BWY 7	28	28		
BWY 1	BWY 1	BWY 0	BWY 0	BWY 4	BWY 4	27	27		
BWY 7	BWY 7	GND	GND	BWY 1	BWY 1	26	26		
BWY 4	BWY 4	BWY 5	BWY 5	BWY 7	BWY 7	25	25		
BWY 1	BWY 1	BWY 2	BWY 2	BWY 4	BWY 4	24	24		
BWY 7	BWY 7	GND	GND	BWY 1	BWY 1	23	23		
BWY 4	BWY 4	BWY 5	BWY 5	BWY 7	BWY 7	22	22		
BWY 1	BWY 1	BWY 2	BWY 2	BWY 4	BWY 4	21	21		
BWY 7	BWY 7	GND	GND	BWY 1	BWY 1	20	20		
LCT KEY	GND	BUS CONT	BUS CONT	SLCT KEY	GND	19	19		
						18	18		
						17	17		
						16	16		
						15	15		
						14	14		
						13	13		
						12	12		
						11	11		
						10	10		

**PU-78 BOARD**



CML CRCL									
A		B		A		B		2	
GND	CEF 7	CEF 9	CEF 8	32	32	GND	CEF 9	CEF 8	2
CEF 7	CEF 7	CEF 9	CEF 8	31	31	CEF 7	CEF 9	CEF 8	CEF 8
GND	CEF 4	CEF 4	CEF 3	30	30	GND	CEF 4	CEF 3	CEF 3
CEF 2	CEF 1	CEF 1	CEF 0	29	29	CEF 2	CEF 1	CEF 0	CEF 0
PER 3	GND	GND	GND	PA 316	28	PER 3	GND	GND	PA 316
PA 315	PA 314	PA 314	PA 313	27	27	PA 315	PA 314	PA 313	PA 313
PA 312	PA 311	PA 311	PA 310	26	26	PA 312	PA 311	PA 310	PA 310
PA 309	PA 308	PA 308	PA 307	25	25	PA 309	PA 308	PA 307	PA 307
PA 306	GND	GND	GND	PA 305	24	PA 307	GND	GND	PA 305
PA 304	PA 303	PA 303	PA 302	23	23	PA 304	PA 303	PA 302	PA 302
PA 301	PA 300	PA 300	GND	22	22	PA 301	PA 300	GND	GND
PER 2	GND	GND	PA 216	21	21	PER 2	GND	PA 216	PA 216
PA 215	PA 214	PA 214	PA 213	20	20	PA 215	PA 214	PA 213	PA 213
PA 212	PA 211	PA 211	PA 210	19	19	PA 212	PA 211	PA 210	PA 210
PA 209	GND	GND	PA 208	18	18	PA 209	GND	GND	PA 208
PA 207	PA 206	PA 206	PA 205	17	17	PA 207	PA 206	PA 205	PA 205
PA 204	PA 203	PA 203	PA 202	16	16	PA 204	PA 203	PA 202	PA 202
PA 201	PA 200	PA 200	GND	15	15	PA 201	PA 200	GND	GND
PER 1	GND	GND	PA 116	14	14	PER 1	GND	PA 116	PA 116
PA 115	PA 114	PA 114	PA 113	13	13	PA 115	PA 114	PA 113	PA 113
PA 112	PA 111	PA 111	PA 110	12	12	PA 112	PA 111	PA 110	PA 110
PA 109	GND	GND	PA 108	11	11	PA 109	GND	GND	PA 108
PA 107	PA 106	PA 106	PA 105	10	10	PA 107	PA 106	PA 105	PA 105
PA 104	PA 103	PA 103	PA 102	9	9	PA 104	PA 103	PA 102	PA 102
PA 101	PA 100	GND	GND	8	8	PA 101	PA 100	GND	GND
PER 0	GND	GND	PA 016	7	7	PER 0	GND	GND	PA 016
PA 015	PA 014	PA 014	PA 013	6	6	PA 015	PA 014	PA 013	PA 013
PA 012	PA 011	PA 011	PA 010	5	5	PA 012	PA 011	PA 010	PA 010
PA 009	GND	GND	PA 008	4	4	PA 009	GND	GND	PA 008
PA 007	PA 006	PA 006	PA 005	3	3	PA 007	PA 006	PA 005	PA 005
PA 004	PA 003	PA 003	PA 002	2	2	PA 004	PA 003	PA 002	PA 002
PA 001	PA 000	PA 000	PA 001	1	1	PA 001	PA 000	PA 000	PA 000

A		B		C		CNB		A		B		C	
FGV 6	FGV 6	FGV 6	FGV 5	FGV 2	31	32	31	32	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	30	30	30	30	FGV 1	FGV 3	FGV 3	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	28	28	28	28	FGV 4	FGV 8	FGV 8	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	27	27	27	27	FGV 1	FGV 0	FGV 0	GND	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	26	26	26	26	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	25	25	25	25	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	24	24	24	24	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	23	23	23	23	FGV 1	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	22	22	22	22	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	21	21	21	21	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	20	20	20	20	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	19	19	19	19	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	18	18	18	18	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	17	17	17	17	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	16	16	16	16	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	15	15	15	15	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	14	14	14	14	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	13	13	13	13	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	12	12	12	12	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	11	11	11	11	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	10	10	10	10	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	9	9	9	9	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	8	8	8	8	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	7	7	7	7	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	6	6	6	6	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	5	5	5	5	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	4	4	4	4	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 1	FGV 3	GND	GND	3	3	3	3	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	2	2	2	2	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2
FGV 4	FGV 3	FGV 3	FGV 0	GND	1	1	1	1	FGV 4	FGV 0	FGV 0	FGV 2	GND
FGV 7	FGV 8	FGV 8	FGV 5	FGV 2	0	0	0	0	FGV 7	FGV 6	FGV 6	FGV 5	FGV 2

MY-54 BOARD

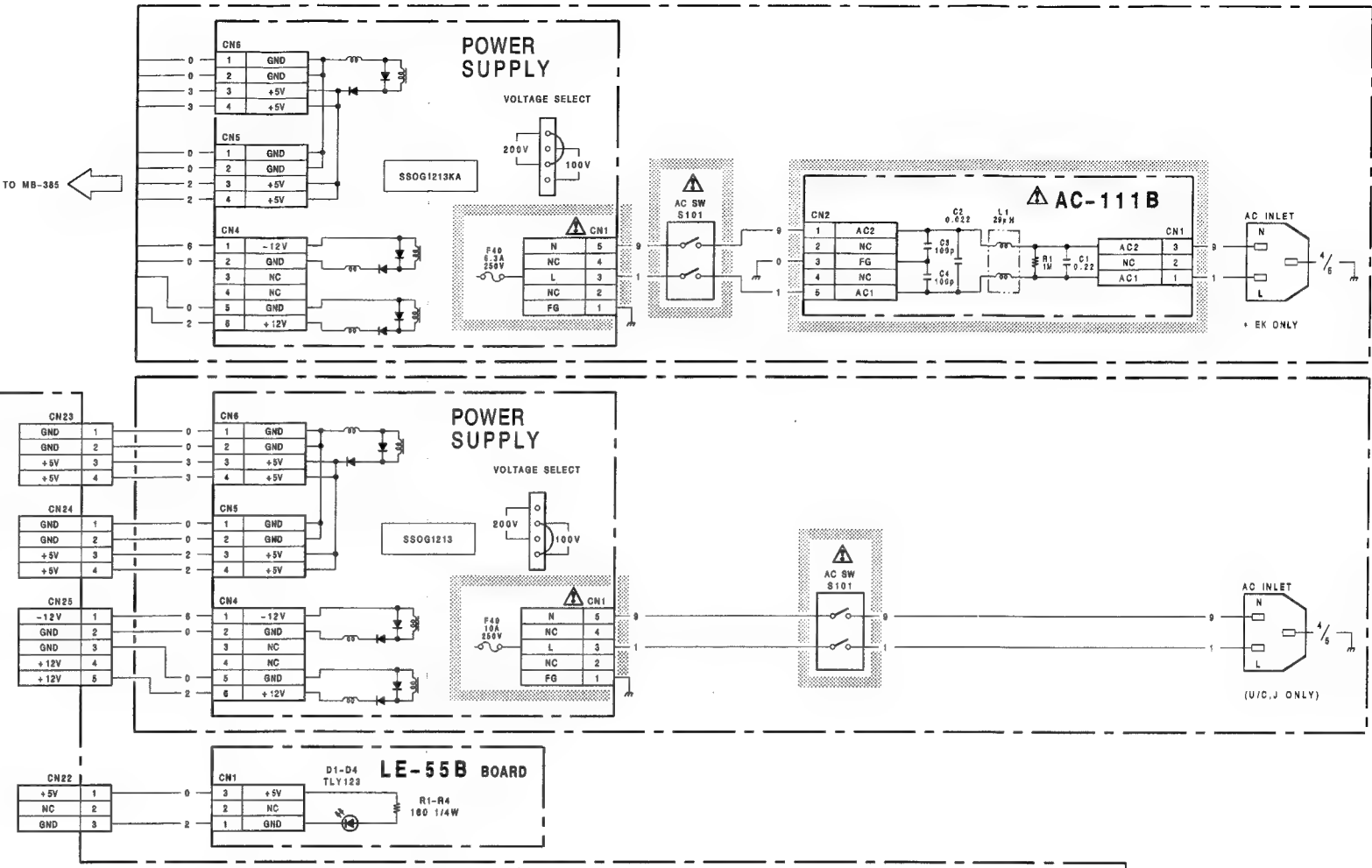
A		B		A		B		C	
GND	GND	GND	SWD	GND	GND	GND	GND	GND	GND
BWFLD	BWFLD	BWFLD	SWD	BWFLD	BWFLD	BWFLD	BWFLD	BWFLD	BWFLD
GND	GND	BWCK	BWCK	GND	GND	BWCK	BWCK	GND	GND
SWY 7	SWY 6	SWY 6	SWY 6	SWY 7	SWY 7	SWY 6	SWY 5	SWY 5	SWY 5
SWY 4	SWY 3	SWY 2	SWY 2	SWY 4	SWY 4	SWY 3	SWY 2	SWY 2	SWY 2
SWY 1	SWY 0	GND	GND	SWY 1	SWY 1	SWY 0	GND	GND	GND
BWY 6	BWY 6	BWY 5	BWY 5	BWY 7	BWY 7	BWY 6	BWY 5	BWY 5	BWY 5
SWY 4	SWY 3	GND	GND	SWY 4	SWY 4	SWY 3	SWY 2	SWY 2	SWY 2
SWY 1	SWY 0	GND	GND	SWY 1	SWY 1	SWY 0	GND	GND	GND
BWU 7	BWU 6	BWU 5	BWU 5	BWU 7	BWU 7	BWU 6	BWU 5	BWU 5	BWU 5
BWU 4	BWU 3	BWU 2	BWU 2	BWU 4	BWU 4	BWU 3	BWU 2	BWU 2	BWU 2
BWU 1	BWU 0	GND	GND	BWU 1	BWU 1	BWU 0	GND	GND	GND
SLCT KEY	GND	BUS COUNT	BUS COUNT	SLCT KEY	SLCT KEY	GND	BUS COUNT	BUS COUNT	BUS COUNT
		18 18	18 18						
		17 17	17 17						
		16 16	16 16						
		15 15	15 15						
		14 14	14 14						
		13 13	13 13						
		12 12	12 12						
		11 11	11 11						
		10 10	10 10						
		9 9	9 9						
		8 8	8 8						
		7 7	7 7						
		6 6	6 6						
		5 5	5 5						
		4 4	4 4						
		3 3	3 3						
		2 2	2 2						
		1 1	1 1						

CRH15									
A		B		C		A		B	
FGV 7	FGV 6	FGV 5	32	32	FGV 7	FGV 7	FGV 6	FGV 6	FGV 5
FGV 4	FGV 3	FGV 2	31	31	FGV 4	FGV 4	FGV 3	FGV 3	FGV 2
FGV 1	FGV 0	GND	30	30	FGV 1	FGV 1	FGV 0	FGV 0	GND
FGV 7	FGV 6	FGV 5	28	28	FGV 7	FGV 7	FGV 6	FGV 6	FGV 5
FGV 4	FGV 3	FGV 2	28	28	FGV 4	FGV 4	FGV 3	FGV 3	FGV 2
FGV 1	FGV 0	GND	27	27	FGV 1	FGV 1	FGV 0	FGV 0	GND
FGV 7	FGV 6	FGV 5	26	26	FGV 7	FGV 7	FGV 6	FGV 6	FGV 5
FGV 4	FGV 3	FGV 2	23	23	FGV 4	FGV 4	FGV 3	FGV 3	FGV 2
FGV 1	FGV 0	GND	24	24	FGV 1	FGV 1	FGV 0	FGV 0	GND
D 16	D 14	D 13	23	23	D 15	D 14	D 14	D 14	D 13
D 12	D 11	D 10	22	22	D 12	D 11	D 11	D 11	D 10
D 9	D 8	GND	21	21	D 9	D 8	D 8	GND	GND
D 7	D 6	D 5	26	26	D 7	D 6	D 6	D 6	D 5
D 4	D 3	D 2	18	18	D 4	D 3	D 3	D 2	D 1
D 1	D 0	GND	18	18	D 1	D 0	D 0	GND	GND
A 13	A 15	A 14	17	17	A 15	A 14	A 15	A 14	A 13
A 10	A 12	A 11	18	18	A 13	A 12	A 12	A 11	A 10
A 8	A 9	GND	15	15	A 10	A 9	A 9	GND	GND
A 6	A 7	A 6	14	14	A 8	A 7	A 7	A 6	A 5
A 5	A 4	A 3	13	13	A 6	A 5	A 4	A 3	A 2
A 2	A 1	GND	12	12	A 2	A 1	A 1	GND	GND
GND	IN KEY	GND	11	11	GND	IN KEY	IN KEY	GND	GND
AHAM	AHAM	GND	9	9	AHAM	AHAM	AHAM	GND	GND
		ORG 1	8	8				ORG 1	
			7	7					
		GND	6	6				GND	
RFLD	RVD	RHD	5	5	RFLD	RVD	RVD	RHD	RHD
GND	RCK	GND	4	4	GND	RCK	RCK	GND	GND
GND	GND	GND	3	3	GND	GND	GND	GND	GND
GND	GND	GND	2	2	GND	GND	GND	GND	GND
GND	GND	GND	1	1	GND	GND	GND	GND	GND

MB-385 BOARD

	CM18				CM18			
	A	B	C		A	B	C	
	+5V	+5V	+5V	32	32	+5V	+5V	+5V
	+5V	+5V	+5V	31	31	+5V	+5V	+5V
	+5V	+5V	+5V	30	30	+5V	+5V	+5V
				29	29			
				28	28			
				27	27			
				26	26			
				25	25			
				24	24			
				23	23			
				22	22			
				21	21			
				20	20			
				19	19			
				18	18			
	KTD +	GND	KTD -	17	17	KTD +	GND	KTD -
	GND	KTD +	GND	16	16	GND	KTD +	GND
	KTD -	GND	RVD +	15	15	KTD -	GND	RVD +
	GND	RVD -	GND	14	14	GND	RVD -	GND
	XMIT +	GND	XMIT -	13	13	XMIT +	GND	XMIT -
	GND	RCV +	GND	12	12	GND	RCV +	GND
	RCV -	GND		11	11	RCV -	GND	
				10	10			
	T 2	GND		9	9	T 2	GND	
	T 1	GND		8	8	T 1	GND	
	NC(-12VPS)			7	7	NC(-12VPS)		
	-12V	-12V	-12V	6	6	-12V	-12V	-12V
	-12V	-12V	-12V	5	5	-12V	-12V	-12V
	NC(+12VPS)	NC(+12VPS)	NC(+12VPS)	4	4	NC(+12VPS)	NC(+12VPS)	NC(+12VPS)
	+12V	+12V	+12V	3	3	+12V	+12V	+12V
	+12V	+12V	+12V	2	2	+12V	+12V	+12V

FM-29 BOARD



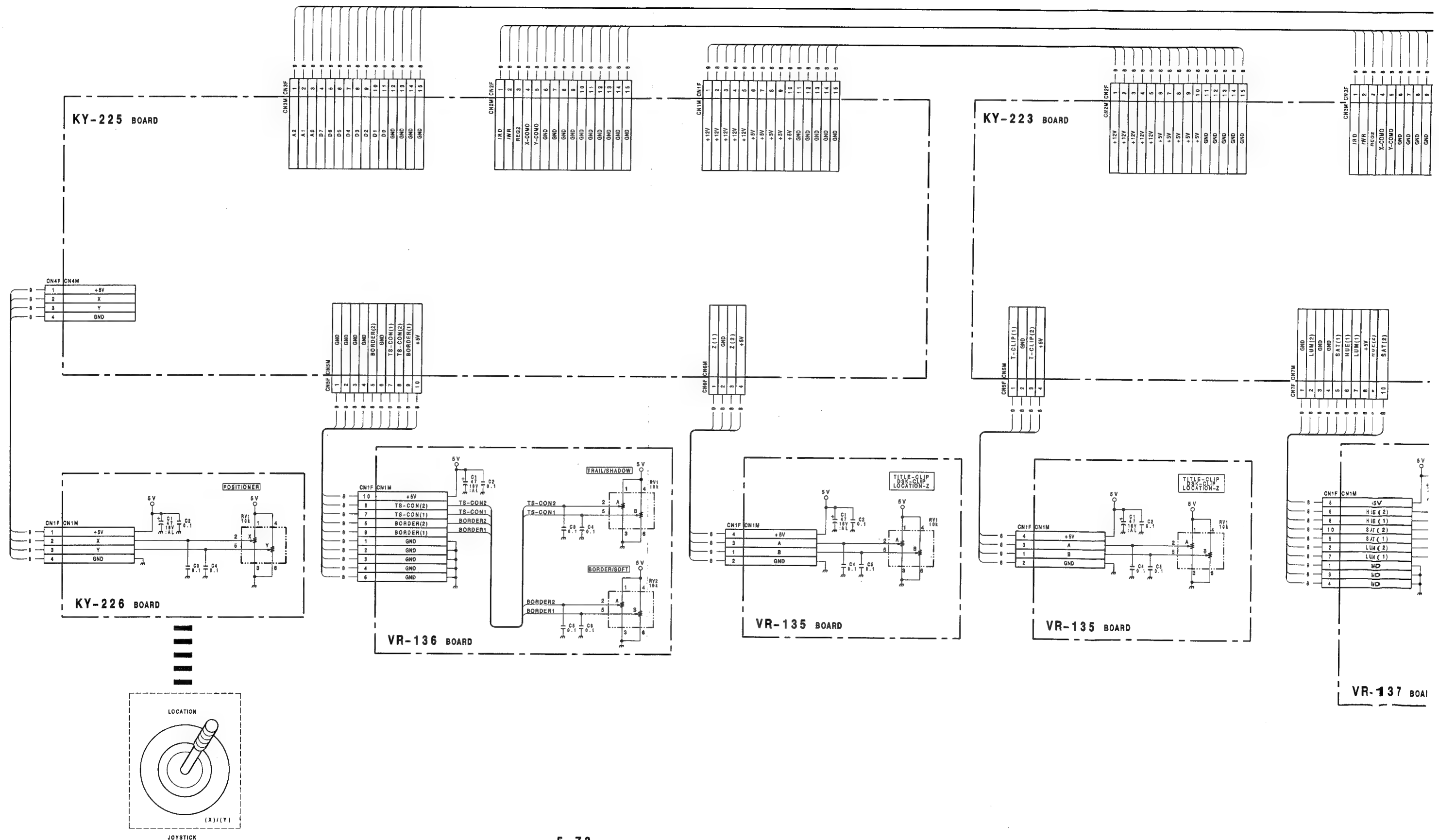
A		B		C		CH15		CH16		B		C	
15A 2	15A 1	15A 0	32	32	15A 2	15A 1	15A 0	32	32	15A 2	15A 1	15A 0	15A 0
15B 2	15B 1	15B 0	31	31	15B 2	15B 1	15B 0	31	31	15B 2	15B 1	15B 0	15B 0
		GND	30	30				29	29				GND
			28	28				27	27				
			26	26				25	25				
			24	24				23	23				
			22	22				21	21				
D 15	D 14	D 13	20	20	D 15	D 14	D 13	19	19	D 15	D 14	D 13	D 13
D 12	D 11	D 10	19	19	D 12	D 11	D 10	18	18	D 12	D 11	D 10	D 10
D 9	D 8	GND	17	17	D 9	D 8	GND	16	16	D 9	D 8	GND	GND
D 7	D 6	D 5	15	15	D 7	D 6	D 5	14	14	D 7	D 6	D 5	D 5
D 4	D 3	D 2	13	13	D 4	D 3	D 2	12	12	D 4	D 3	D 2	D 2
D 1	D 0	GND	11	11	D 1	D 0	GND	10	10	D 1	D 0	GND	GND
A 16	A 15	A 14	10	10	A 16	A 15	A 14	9	9	A 16	A 15	A 14	A 14
A 13	A 12	A 11	9	9	A 13	A 12	A 11	8	8	A 13	A 12	A 11	A 11
A 10	A 9	GND	7	7	A 10	A 9	GND	6	6	A 10	A 9	GND	GND
A 8	A 7	A 6	5	5	A 8	A 7	A 6	4	4	A 8	A 7	A 6	A 6
A 5	A 4	A 3	4	4	A 5	A 4	A 3	3	3	A 5	A 4	A 3	A 3
A 2	A 1	GND	3	3	A 2	A 1	GND	2	2	A 2	A 1	GND	GND
A 0	UBE	UBE	1	1	A 0	UBE	UBE	1	1	A 0	UBE	UBE	UBE
			10	10				9	9				
ARMW	ARMW	GND	8	8	ARMW	ARMW	ARMW	7	7	ARMW	ARMW	ARMW	GND
MTXK	MTXK	ORE 1	7	7	MTXK	ORE 2	ORE 1	6	6	MTXK	ORE 2	ORE 1	ORE 1
BUS	BUS	OPT 1	6	6	BUS	OPT 2	OPT 1	5	5	BUS	OPT 2	OPT 1	OPT 1
RESET	RESET	RVD	5	5	RESET	RVD	RVD	4	4	RESET	RVD	RVD	RVD
RFLD	RFLD	GND	4	4	RFLD	GND	GND	3	3	RFLD	GND	GND	GND
GND	GND	GND	3	3	GND	GND	GND	2	2	GND	GND	GND	GND
GND	GND	GND	2	2	GND	GND	GND	1	1	GND	GND	GND	GND

SY-172 BOARD

## FRAME WIRING (2/ 3)

DFS-500  
DFS-500P

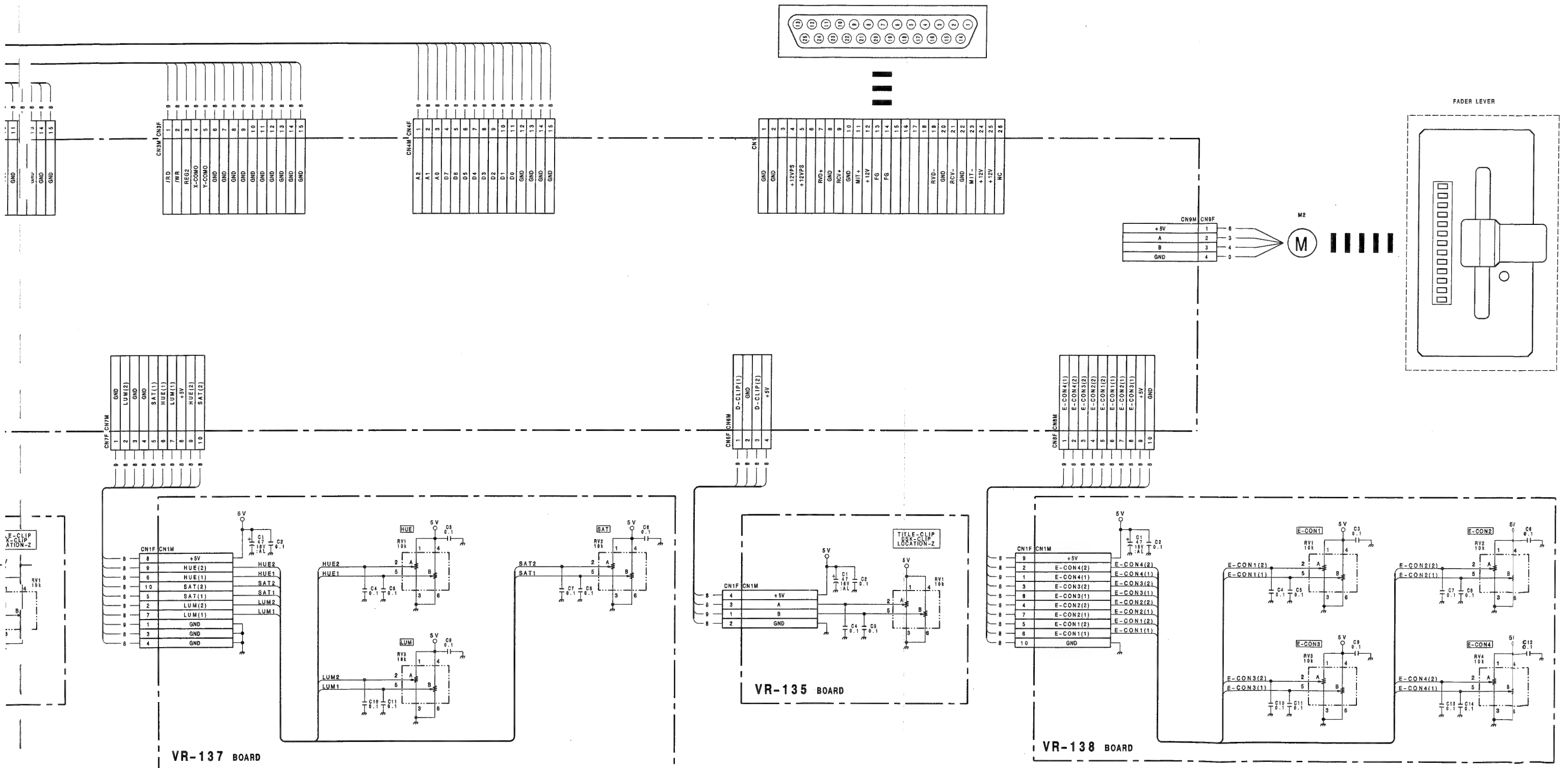






CONTROL PANEL FRAME WIRING(3/3)    FRAME WIRING(3/3) CONTROL PANEL

TO/FROM  
PROCESSOR UNIT  
CN1  
(D-SUB 25P)



## FRAME WIRING(3 /3)

DFS-500  
DFS-500P



## SECTION 6 BOARD LAYOUTS

Board	Function	Page
A AC-111(For EK)	Line Filter.....	6-21
AD-76	A/D Converter.....	6-2
C CN-573	Rear Panel Connector.....	6-14
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KY-225	Switch.....	6-20
KY-226	Positioner.....	6-21
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	Title Control	
	DSK(Down Stream Keyer) Control	
VR-136	Edge/Trail/Shadow Control.....	6-21
VR-137	Mattes/BKGD Control.....	6-21
VR-138	Effect Control.....	6-21



20

21

2

14

10

8

18

20

21

21

6

3

1

2

11

11

11

1

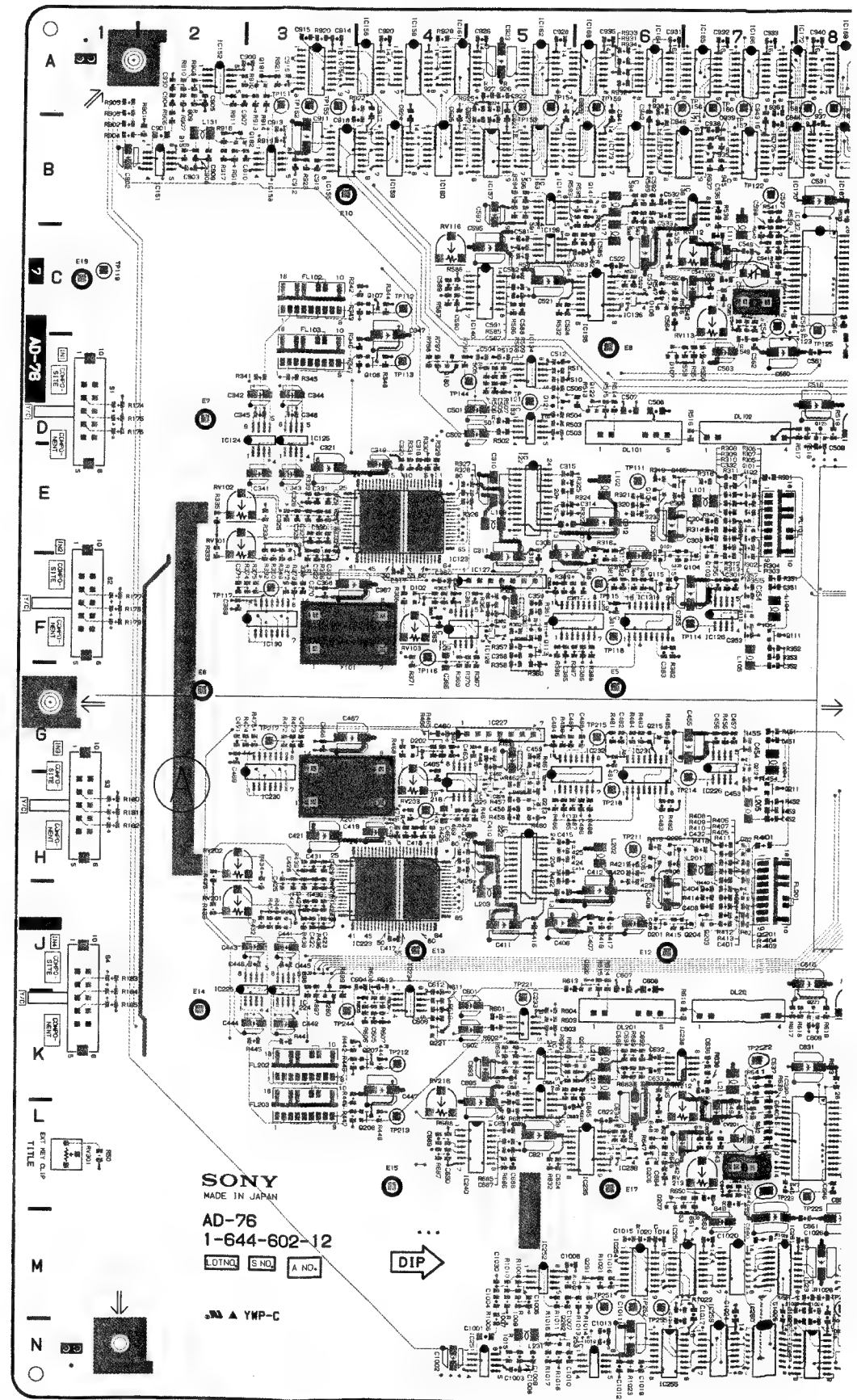


## AD-76(1-644-602-12)

CN19	C-15	FL101	E-8	IC143	C-12	IC228	H-5	Q102	E-7	Q215	G-6	RV116	C-4	TP155	A-3
CN20	G-15	FL102	C-3	IC144	B-12	IC229	H-5	Q103	F-7	Q221	K-4	RV117	D-10	TP156	A-7
CN21	L-15	FL103	C-3	IC145	E-13	IC230	H-3	Q104	F-7	Q222	J-6	RV118	C-11	TP157	B-7
		FL111	D-9	IC146	D-13	IC231	G-6	Q105	E-7	Q223	K-8	RV119	B-11	TP158	A-8
CV101	C-7	FL112	C-9	IC147	C-13	IC232	G-6	Q106	E-6	Q224	K-9	RV121	D-12	TP159	A-6
CV201	L-7	FL113	D-9	IC148	D-13	IC233	K-5	Q107	C-4	Q225	K-9	RV122	C-12	TP160	A-7
		FL114	C-10	IC149	C-14	IC234	J-4	Q108	D-4	Q231	L-9	RV123	B-12	TP161	A-8
DL101	E-6	FL115	B-10	IC150	C-13	IC235	L-6	Q111	F-7	Q232	L-9	RV131	B-8	TP162	A-8
DL102	D-7	FL201	J-8	IC151	B-2	IC236	L-6	Q112	F-7	Q233	L-10	RV201	J-2	TP163	A-9
DL103	D-10	FL202	K-3	IC152	A-2	IC237	K-8	Q113	F-5	Q234	L-10	RV202	H-2	TP164	B-10
DL201	K-6	FL203	L-3	IC153	B-3	IC238	K-7	Q114	F-5	Q235	M-10	RV203	H-4	TP165	B-10
DL202	J-7	FL211	L-9	IC154	A-3	IC239	L-5	Q115	F-6	Q236	L-10	RV211	J-8	TP201	G-10
DL203	K-10	FL212	K-9	IC155	B-3	IC240	L-5	Q121	D-5	Q237	K-9	RV212	K-7	TP202	G-10
		FL213	J-9	IC156	A-4	IC241	K-5	Q122	D-6	Q238	L-9	RV213	L-7	TP203	G-10
D101	E-6	FL214	L-10	IC157	B-5	IC242	K-11	Q123	D-8	Q239	K-10	RV214	L-10	TP204	H-10
D102	F-4	FL215	K-10	IC158	A-4	IC243	L-12	Q124	E-9	Q240	L-10	RV215	K-10	TP205	H-10
D103	E-3			IC159	B-4	IC244	L-12	Q125	E-9	Q241	K-6	RV216	K-4	TP206	H-10
D106	C-6	IC1	A-13	IC160	B-4	IC245	K-13	Q131	C-9	Q251	K-10	RV217	J-11	TP211	H-6
D107	D-6	IC2	A-12	IC161	A-4	IC246	M-13	Q132	C-9	Q252	K-10	RV218	L-11	TP212	K-4
D111	D-12	IC3	A-12	IC162	A-5	IC247	K-13	Q133	D-10	Q253	J-11	RV219	K-11	TP213	L-4
D112	D-12	IC4	A-11	IC163	B-5	IC248	J-13	Q134	C-10	Q254	J-11	RV221	J-12	TP214	H-7
D113	C-12	IC101	F-13	IC164	A-6	IC249	L-13	Q135	D-10	Q255	L-11	RV222	L-12	TP215	G-6
D121	A-8	IC102	F-11	IC165	A-7	IC250	K-14	Q136	C-9	Q256	M-11	RV223	K-12	TP216	H-4
D122	B-9	IC103	F-13	IC166	A-7	IC251	N-5	Q137	B-9	Q257	M-11	RV231	N-11	TP217	G-3
D123	A-10	IC104	F-11	IC167	B-8	IC252	M-5	Q138	C-10	Q258	K-11	RV301	L-1	TP218	H-6
D124	A-9	IC105	F-13	IC168	A-6	IC253	N-6	Q139	C-10	Q259	L-11	RV302	H-13	TP221	J-5
D125	A-10	IC106	F-11	IC169	A-8	IC254	M-6	Q140	C-10	Q260	L-11			TP222	K-7
D126	A-10	IC107	E-13	IC170	B-8	IC255	N-7	Q141	B-6	Q271	J-12	S1	D-1	TP223	L-8
D201	J-6	IC108	E-11	IC171	A-7	IC256	M-7	Q151	D-10	Q272	J-12	S2	F-1	TP224	L-8
D202	G-4	IC109	E-13	IC172	A-8	IC257	N-8	Q152	D-10	Q273	J-12	S3	H-1	TP225	L-8
D203	J-3	IC110	E-11	IC173	B-6	IC258	M-7	Q153	E-11	Q274	L-12	S4	J-1	TP231	J-11
D206	L-6	IC111	E-13	IC174	B-6	IC259	M-7	Q154	D-11	Q275	L-12			TP232	L-11
D207	L-6	IC112	E-11	IC175	B-7	IC260	M-7	Q155	C-11	Q276	L-12	TP101	F-10	TP233	K-11
D211	K-12	IC113	J-10	IC176	A-9	IC261	M-8	Q156	D-11	Q277	K-12	TP102	F-10	TP241	J-12
D212	M-12	IC114	H-9	IC177	A-9	IC262	M-8	Q157	D-11	Q278	K-12	TP103	F-10	TP242	L-12
D213	L-12	IC115	H-9	IC178	B-10	IC263	M-8	Q158	C-11	Q279	K-12	TP104	E-10	TP243	K-13
D221	M-11	IC116	G-9	IC179	A-10	IC264	M-9	Q159	C-11	Q280	K-3	TP105	E-10	TP244	K-4
D222	N-13	IC117	G-9	IC201	F-13	IC265	M-10	Q160	C-11	Q291	M-6	TP106	E-10	TP251	M-6
D223	M-13	IC118	F-9	IC202	G-11	IC266	M-10	Q171	D-12	Q292	M-6	TP111	E-6	TP252	M-6
D224	M-13	IC119	E-9	IC203	G-13	IC267	N-11	Q172	D-12	Q293	M-13	TP112	C-4	TP253	M-8
D225	M-13	IC120	E-9	IC204	G-11	IC268	M-9	Q173	D-12	Q301	J-14	TP113	D-4	TP254	M-8
D226	M-13	IC121	F-8	IC205	G-13	IC269	M-11	Q174	C-12	Q302	H-14	TP114	F-7	TP255	M-6
D301	J-13	IC122	E-5	IC206	G-11	IC270	N-11	Q175	C-12	Q303	J-13	TP115	F-6	TP256	M-10
		IC123	F-4	IC207	G-13	IC271	N-9	Q176	C-12	Q304	J-13	TP116	G-4	TP257	M-10
E1	E-9	IC124	D-2	IC208	G-11	IC272	M-10	Q177	B-12	Q305	J-13	TP117	F-2	TP258	M-11
E2	J-10	IC125	D-3	IC209	H-13	IC273	M-9	Q178	B-12	Q306	H-13	TP118	F-6	TP259	M-9
E3	H-8	IC126	F-7	IC210	H-11	IC274	M-9	Q179	B-12	Q307	J-12	TP119	C-1	TP260	M-10
E4	G-14	IC127	F-5	IC211	H-13	IC275	N-10	Q180	D-4			TP121	D-5	TP261	M-11
E5	F-6	IC128	F-5	IC212	H-11	IC276	M-12	Q191	A-3	RB1	D-14	TP122	B-7	TP262	M-12
E6	G-2	IC129	F-4	IC213	J-9	IC277	M-12	Q192	B-3	RB2	C-14	TP123	D-8	TP263	M-13
E7	D-2	IC130	F-3	IC214	H-9	IC278	N-14	Q193	A-10	RB3	C-14	TP124	C-8	TP264	N-13
E8	D-6	IC131	F-6	IC215	H-9	IC279	M-14	Q201	J-7	RB101	K-14	TP125	D-8	TP265	N-13
E9	C-13	IC132	F-6	IC216	G-9	IC301	J-12	Q202	H-7	RB102	L-14	TP131	D-11	TP301	H-14
E10	B-3	IC133	D-5	IC217	G-9	IC302	J-11	Q203	J-7	RB103	K-14	TP132	C-11	TP302	J-13
E11	B-8	IC134	D-5	IC218	F-9			Q204	J-7			TP133	B-11	TP303	H-12
E12	J-6	IC135	C-6	IC219	E-9	LV101	B-10	Q205	H-7	RV101	E-2	TP141	D-13		
E13	J-4	IC136	C-6	IC220	E-9	LV201	N-13	Q206	H-6	RV102	E-2	TP142	C-12	X101	G-4
E14	K-2	IC137	B-8	IC222	H-5			Q207	K-4	RV103	F-4	TP143	B-12	X102	C-7
E15	L-4	IC138	B-7	IC223	J-4	PS1	B-14	Q208	L-4	RV111	D-8	TP144	D-4	X201	H-4
E16	L-13	IC139	C-5	IC224	K-3	PS2	B-14	Q211	H-8	RV112	C-7	TP151	A-3	X202	L-7
E17	L-6	IC140	C-5	IC225	J-2	PS3	E-14	Q212	G-7	RV113	C-7	TP152	A-3		
E18	M-9	IC141	B-5	IC226	H-7			Q213	H-5	RV114	C-10	TP153	A-5		
E19	C-1	IC142	D-12	IC227	G-5	Q101	E-7	Q214	H-5	RV115	B-10	TP154	A-5		

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## AD-76;A/D Converter

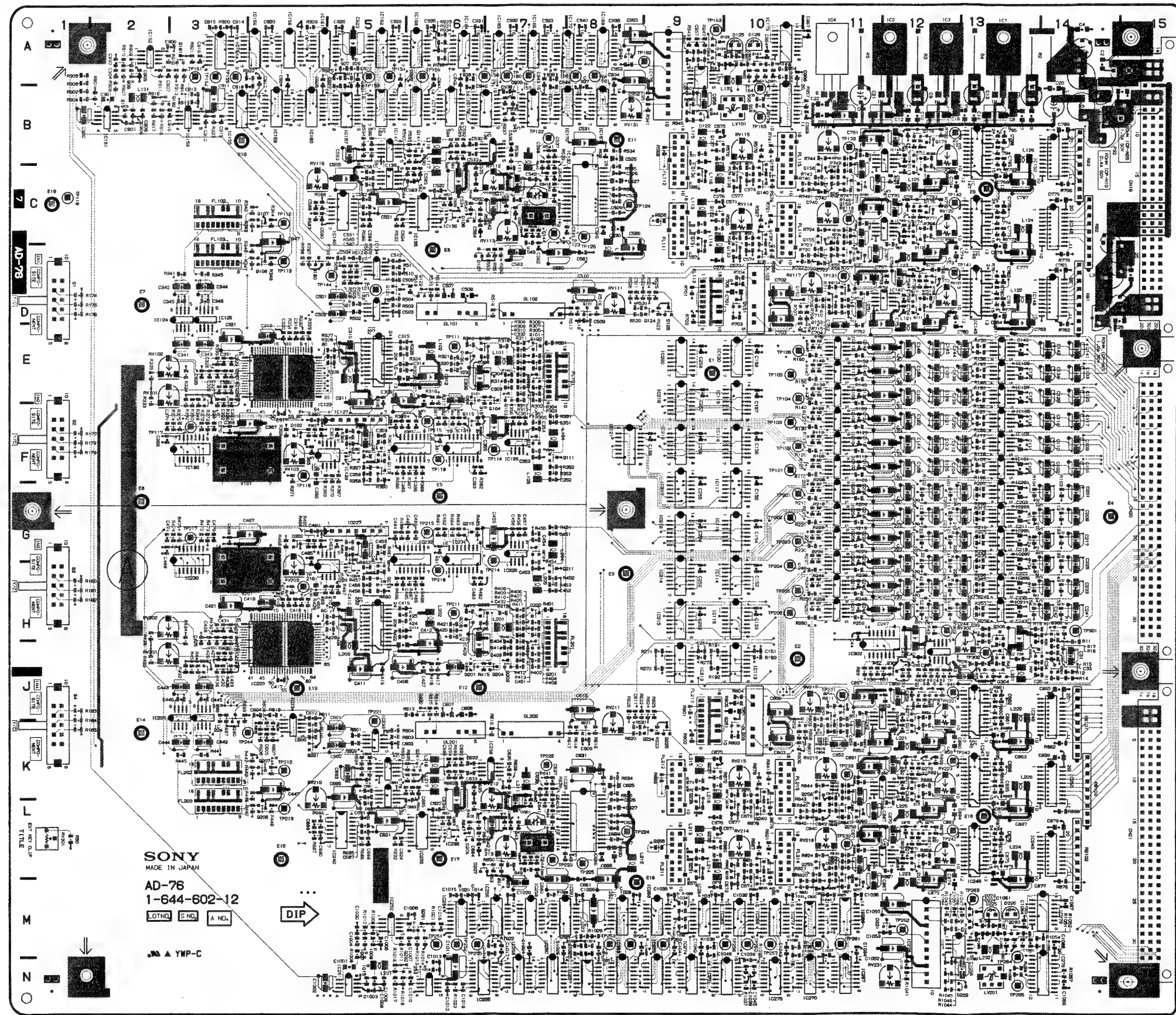




## AD-76;A/D Converter

Q215	G-6	RV116	C-4	TP155	A-3
Q221	K-4	RV117	D-10	TP156	A-7
Q222	J-6	RV118	C-11	TP157	B-7
Q223	K-8	RV119	B-11	TP158	A-8
Q224	K-9	RV121	D-12	TP159	A-6
Q225	K-9	RV122	C-12	TP160	A-7
Q231	L-9	RV123	B-12	TP161	A-8
Q232	L-9	RV131	B-8	TP162	A-8
Q233	L-10	RV201	J-2	TP163	A-9
Q234	L-10	RV202	H-2	TP164	B-10
Q235	M-10	RV203	H-4	TP165	B-10
Q236	L-10	RV211	J-8	TP201	G-10
Q237	K-9	RV212	K-7	TP202	G-10
Q238	L-9	RV213	L-7	TP203	G-10
Q239	K-10	RV214	L-10	TP204	H-10
Q240	L-10	RV215	K-10	TP205	H-10
Q241	K-6	RV216	K-4	TP206	H-10
Q251	K-10	RV217	J-11	TP211	H-6
Q252	K-10	RV218	L-11	TP212	K-4
Q253	J-11	RV219	K-11	TP213	L-4
Q254	J-11	RV221	J-12	TP214	H-7
Q255	L-11	RV222	L-12	TP215	G-6
Q256	M-11	RV223	K-12	TP216	H-4
Q257	M-11	RV231	N-11	TP217	G-3
Q258	K-11	RV301	L-1	TP218	H-6
Q259	L-11	RV302	H-13	TP221	J-5
Q260	L-11			TP222	K-7
Q271	J-12	S1	D-1	TP223	L-8
Q272	J-12	S2	F-1	TP224	L-8
Q273	J-12	S3	H-1	TP225	L-8
Q274	L-12	S4	J-1	TP231	J-11
Q275	L-12			TP232	L-11
Q276	L-12	TP101	F-10	TP233	K-11
Q277	K-12	TP102	F-10	TP241	J-12
Q278	K-12	TP103	F-10	TP242	L-12
Q279	K-12	TP104	E-10	TP243	K-13
Q280	K-3	TP105	E-10	TP244	K-4
Q291	M-6	TP106	E-10	TP251	M-6
Q292	M-6	TP111	E-6	TP252	M-6
Q293	M-13	TP112	C-4	TP253	M-8
Q301	J-14	TP113	D-4	TP254	M-8
Q302	H-14	TP114	F-7	TP255	M-6
Q303	J-13	TP115	F-6	TP256	M-10
Q304	J-13	TP116	G-4	TP257	M-10
Q305	J-13	TP117	F-2	TP258	M-11
Q306	H-13	TP118	F-6	TP259	M-9
Q307	J-12	TP119	C-1	TP260	M-10
		TP121	D-5	TP261	M-11
RB1	D-14	TP122	B-7	TP262	M-12
RB2	C-14	TP123	D-8	TP263	M-13
RB3	C-14	TP124	C-8	TP264	N-13
RB101	K-14	TP125	D-8	TP265	N-13
RB102	L-14	TP131	D-11	TP301	H-14
RB103	K-14	TP132	C-11	TP302	J-13
		TP133	B-11	TP303	H-12
		TP141	D-13		
RV101	E-2	TP142	C-12	X101	G-4
RV102	E-2	TP143	B-12	X102	C-7
RV103	F-4	TP144	D-4	X201	H-4
RV111	D-8	TP151	A-3	X202	L-7
RV112	C-7	TP152	A-3		
RV113	C-7	TP153	A-5		
RV114	C-10	TP154	A-5		
RV115	B-10				

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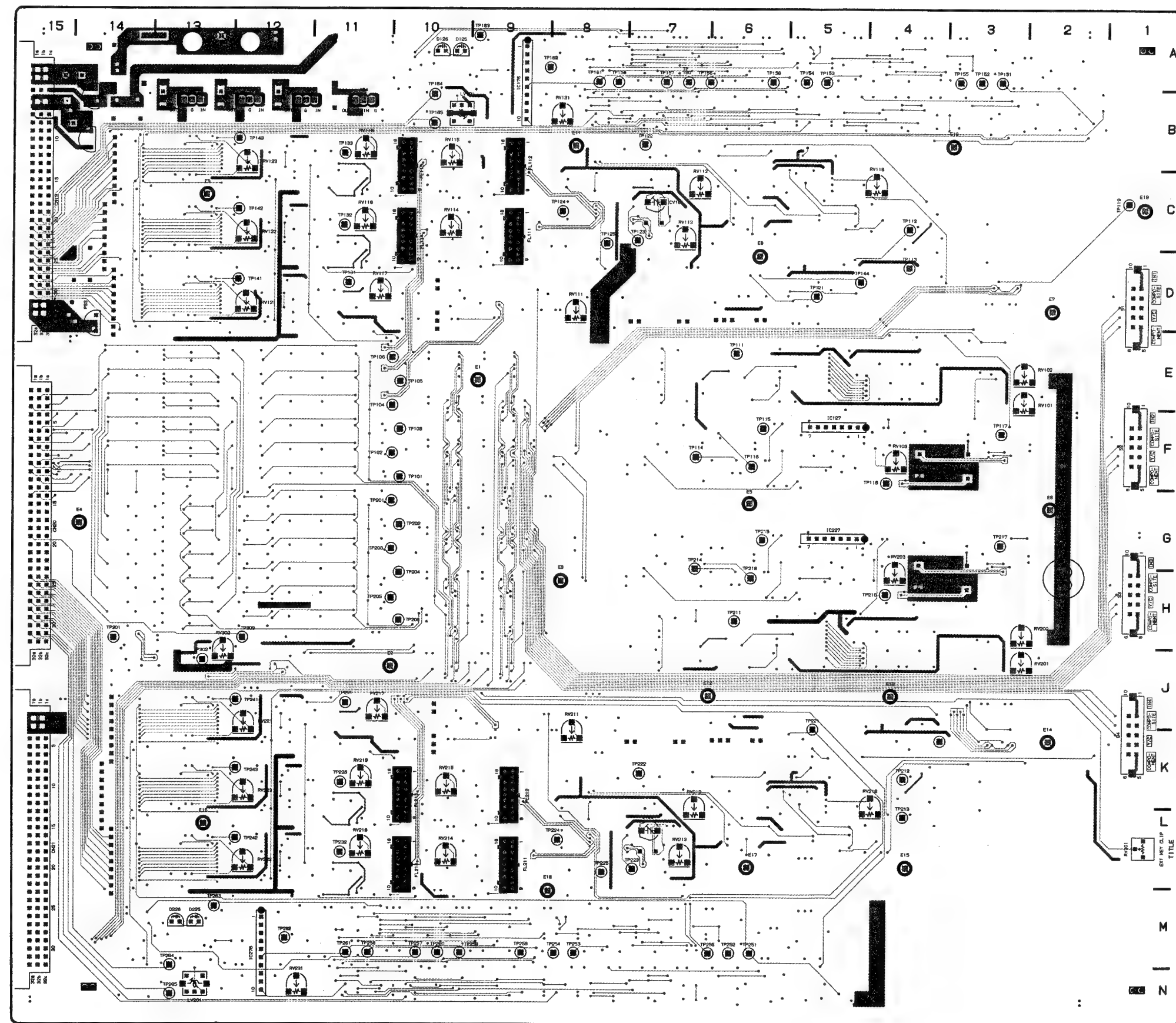


AD-76 -A SIDE-

1-644-602-11,12  
DFS-500/500P



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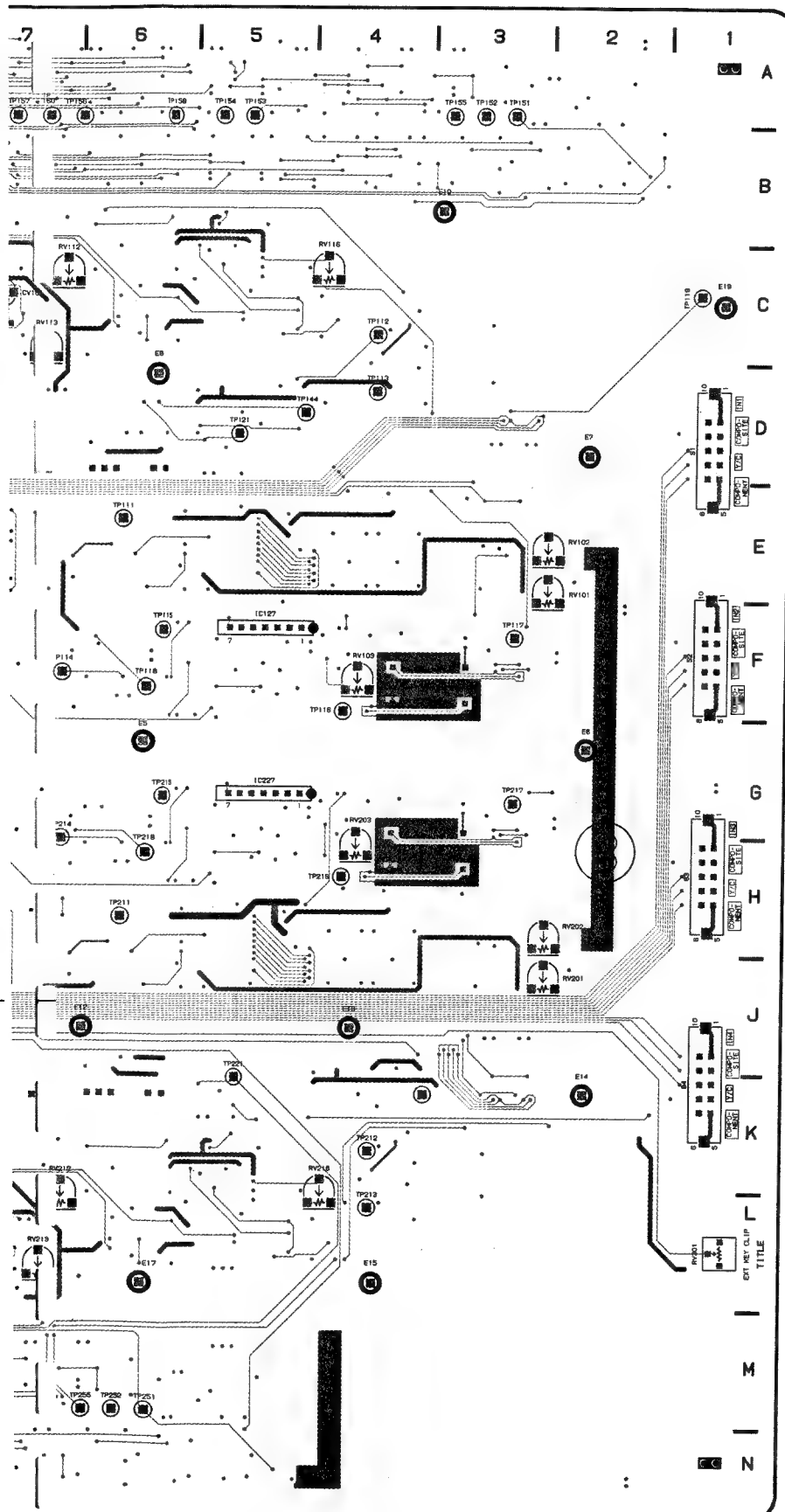


AD-76(1-644-602-12)

CN19	C-15	FL101	E-8	IC14
CN20	G-15	FL102	C-3	IC14
CN21	L-15	FL103	C-3	IC14
		FL111	D-9	IC14
CV101	C-7	FL112	C-9	IC14
CV201	L-7	FL113	D-9	IC14
		FL114	C-10	IC14
DL101	E-6	FL115	B-10	IC15
DL102	D-7	FL201	J-8	IC15
DL103	D-10	FL202	K-3	IC15
DL201	K-6	FL203	L-3	IC15
DL202	J-7	FL211	L-9	IC15
DL203	K-10	FL212	K-9	IC15
		FL213	J-9	IC15
D101	E-6	FL214	L-10	IC15
D102	F-4	FL215	K-10	IC15
D103	E-3			IC15
D106	C-6	IC1	A-13	IC16
D107	D-6	IC2	A-12	IC16
D111	D-12	IC3	A-12	IC16
D112	D-12	IC4	A-11	IC16
D113	C-12	IC101	F-13	IC16
D121	A-8	IC102	F-11	IC16
D122	B-9	IC103	F-13	IC16
D123	A-10	IC104	F-11	IC16
D124	A-9	IC105	F-13	IC16
D125	A-10	IC106	F-11	IC16
D126	A-10	IC107	E-13	IC17
D201	J-6	IC108	E-11	IC17
D202	G-4	IC109	E-13	IC17
D203	J-3	IC110	E-11	IC17
D206	L-6	IC111	E-13	IC17
D207	L-6	IC112	E-11	IC17
D211	K-12	IC113	J-10	IC17
D212	M-12	IC114	H-9	IC17
D213	L-12	IC115	H-9	IC17
D221	M-11	IC116	G-9	IC17
D222	N-13	IC117	G-9	IC20
D223	M-13	IC118	F-9	IC20
D224	M-13	IC119	E-9	IC20
D225	M-13	IC120	E-9	IC20
D226	M-13	IC121	F-8	IC20
D301	J-13	IC122	E-5	IC20
		IC123	F-4	IC20
E1	E-9	IC124	D-2	IC20
E2	J-10	IC125	D-3	IC20
E3	H-8	IC126	F-7	IC21
E4	G-14	IC127	F-5	IC21
E5	F-6	IC128	F-5	IC21
E6	G-2	IC129	F-4	IC21
E7	D-2	IC130	F-3	IC21
E8	D-6	IC131	F-6	IC21
E9	C-13	IC132	F-6	IC21
E10	B-3	IC133	D-5	IC21
E11	B-8	IC134	D-5	IC21
E12	J-6	⊙IC135	C-6	IC21
E13	J-4	⊙IC136	C-6	IC22
E14	K-2	IC137	B-8	IC22
E15	L-4	IC138	B-7	IC22
E16	L-13	IC139	C-5	IC22
E17	L-6	IC140	C-5	IC22
E18	M-9	IC141	B-5	IC22
E19	C-1	IC142	D-12	IC22

**AD-76-B SIDE-**  
1-644-602-11,12  
DFS-500/500P





AD-76-B SIDE-  
1-644-602-11,12  
DFS-500/500P

AD-76(1-644-602-12)

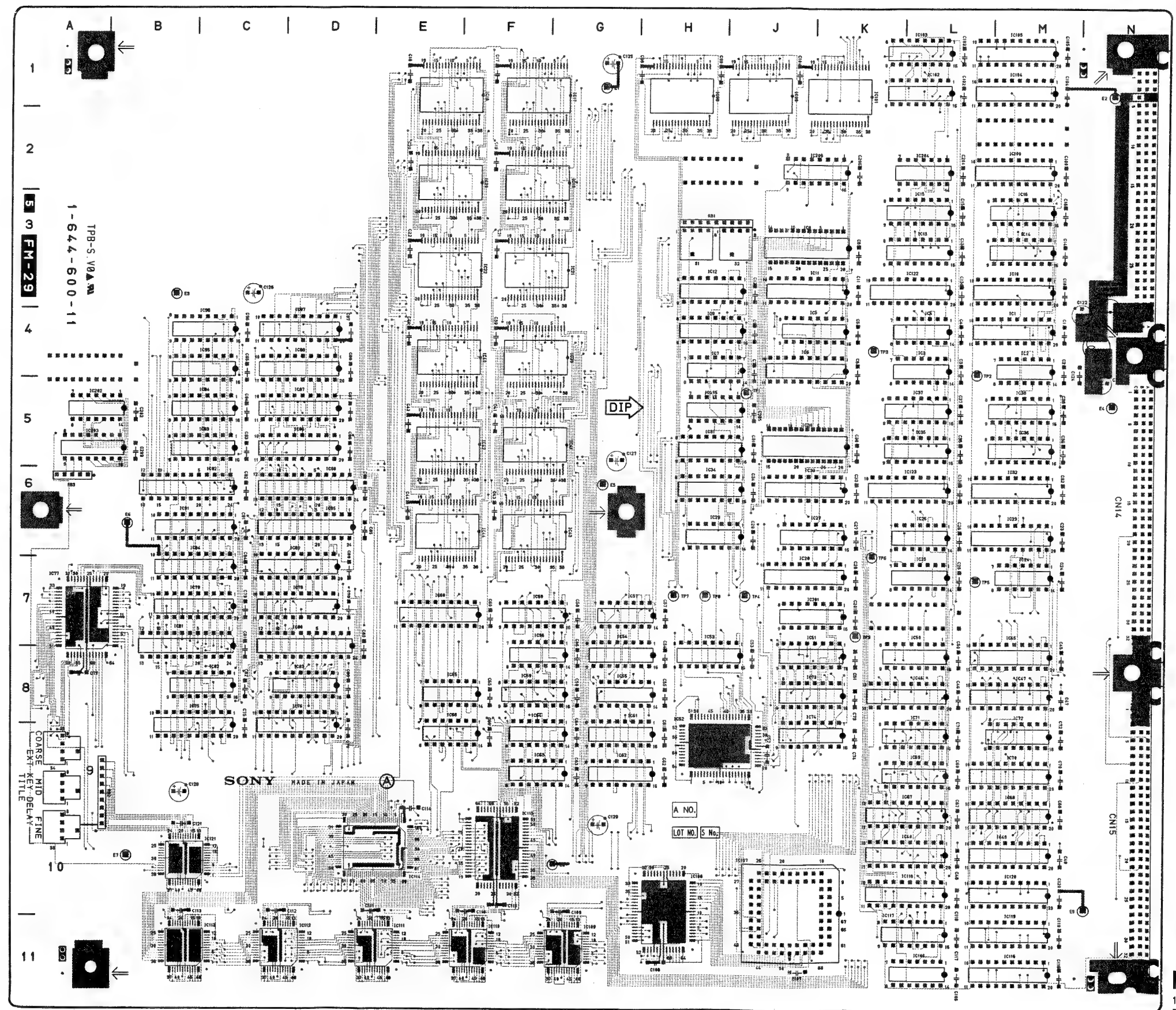
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CN20	G-15	FL102	C-3	IC144	B-12	IC229	H-5	Q103	F-7	Q221	K-4	RV117	D-10	TP156	A-7
CN21	L-15	FL103	C-3	IC145	E-13	IC230	H-3	Q104	F-7	Q222	J-6	RV118	C-11	TP157	B-7
		FL111	D-9	IC146	D-13	IC231	G-6	Q105	E-7	Q223	K-8	RV119	B-11	TP158	A-8
CV101	C-7	FL112	C-9	IC147	C-13	IC232	G-6	Q106	E-6	Q224	K-9	RV121	D-12	TP159	A-6
CV201	L-7	FL113	D-9	IC148	D-13	IC233	K-5	Q107	C-4	Q225	K-9	RV122	C-12	TP160	A-7
		FL114	C-10	IC149	C-14	IC234	J-4	Q108	D-4	Q231	L-9	RV123	B-12	TP161	A-8
DL101	E-6	FL115	B-10	IC150	C-13	IC235	L-6	Q111	F-7	Q232	L-9	RV131	B-8	TP162	A-8
DL102	D-7	FL201	J-8	IC151	B-2	IC236	L-6	Q112	F-7	Q233	L-10	RV201	J-2	TP163	A-9
DL103	D-10	FL202	K-3	IC152	A-2	IC237	K-8	Q113	F-5	Q234	L-10	RV202	H-2	TP164	B-10
DL201	K-6	FL203	L-3	IC153	B-3	IC238	K-7	Q114	F-5	Q235	M-10	RV203	H-4	TP165	B-10
DL202	J-7	FL211	L-9	IC154	A-3	IC239	L-5	Q115	F-6	Q236	L-10	RV211	J-8	TP201	G-10
DL203	K-10	FL212	K-9	IC155	B-3	IC240	L-5	Q121	D-5	Q237	K-9	RV212	K-7	TP202	G-10
		FL213	J-9	IC156	A-4	IC241	K-5	Q122	D-6	Q238	L-9	RV213	L-7	TP203	G-10
D101	E-6	FL214	L-10	IC157	B-5	IC242	K-11	Q123	D-8	Q239	K-10	RV214	L-10	TP204	H-10
D102	F-4	FL215	K-10	IC158	A-4	IC243	L-12	Q124	E-9	Q240	L-10	RV215	K-10	TP205	H-10
D103	E-3			IC159	B-4	IC244	L-12	Q125	E-9	Q241	K-6	RV216	K-4	TP206	H-10
D106	C-6	IC1	A-13	IC160	B-4	IC245	K-13	Q131	C-9	Q251	K-10	RV217	J-11	TP211	H-6
D107	D-6	IC2	A-12	IC161	A-4	IC246	M-13	Q132	C-9	Q252	K-10	RV218	L-11	TP212	K-4
D111	D-12	IC3	A-12	IC162	A-5	IC247	K-13	Q133	D-10	Q253	J-11	RV219	K-11	TP213	L-4
D112	D-12	IC4	A-11	IC163	B-5	IC248	J-13	Q134	C-10	Q254	J-11	RV221	J-12	TP214	H-7
D113	C-12	IC101	F-13	IC164	A-6	IC249	L-13	Q135	D-10	Q255	L-11	RV222	L-12	TP215	G-6
D121	A-8	IC102	F-11	IC165	A-7	IC250	K-14	Q136	C-9	Q256	M-11	RV223	K-12	TP216	H-4
D122	B-9	IC103	F-13	IC166	A-7	IC251	N-5	Q137	B-9	Q257	M-11	RV231	N-11	TP217	G-3
D123	A-10	IC104	F-11	IC167	B-8	IC252	M-5	Q138	C-10	Q258	K-11	RV301	L-1	TP218	H-6
D124	A-9	IC105	F-13	IC168	A-6	IC253	N-6	Q139	C-10	Q259	L-11	RV302	H-13	TP221	J-5
D125	A-10	IC106	F-11	IC169	A-8	IC254	M-6	Q140	C-10	Q260	L-11			TP222	K-7
D126	A-10	IC107	E-13	IC170	B-8	IC255	N-7	Q141	B-6	Q271	J-12	S1	D-1	TP223	L-8
D201	J-6	IC108	E-11	IC171	A-7	IC256	M-7	Q151	D-10	Q272	J-12	S2	F-1	TP224	L-8
D202	G-4	IC109	E-13	IC172	A-8	IC257	N-8	Q152	D-10	Q273	J-12	S3	H-1	TP225	L-8
D203	J-3	IC110	E-11	IC173	B-6	IC258	M-7	Q153	E-11	Q274	L-12	S4	J-1	TP231	J-11
D206	L-6	IC111	E-13	IC174	B-6	IC259	M-7	Q154	D-11	Q275	L-12			TP232	L-11
D207	L-6	IC112	E-11	IC175	B-7	IC260	M-7	Q155	C-11	Q276	L-12	TP101	F-10	TP233	K-11
D211	K-12	IC113	J-10	IC176	A-9	IC261	M-8	Q156	D-11	Q277	K-12	TP102	F-10	TP241	J-12
D212	M-12	IC114	H-9	IC177	A-9	IC262	M-8	Q157	D-11	Q278	K-12	TP103	F-10	TP242	L-12
D213	L-12	IC115	H-9	IC178	B-10	IC263	M-8	Q158	C-11	Q279	K-12	TP104	E-10	TP243	K-13
D221	M-11	IC116	G-9	IC179	A-10	IC264	M-9	Q159	C-11	Q280	K-3	TP105	E-10	TP244	K-4
D222	N-13	IC117	G-9	IC201	F-13	IC265	M-10	Q160	C-11	Q291	M-6	TP106	E-10	TP251	M-6
D223	M-13	IC118	F-9	IC202	G-11	IC266	M-10	Q171	D-12	Q292	M-6	TP111	E-6	TP252	M-6
D224	M-13	IC119	E-9	IC203	G-13	IC267	N-11	Q172	D-12	Q293	M-13	TP112	C-4	TP253	M-8
D225	M-13	IC120	E-9	IC204	G-11	IC268	M-9	Q173	D-12	Q301	J-14	TP113	D-4	TP254	M-8
D226	M-13	IC121	F-8	IC205	G-13	IC269	M-11	Q174	C-12	Q302	H-14	TP114	F-7	TP255	M-6
D301	J-13	IC122	E-5	IC206	G-11	IC270	N-11	Q175	C-12	Q303	J-13	TP115	F-6	TP256	M-10
		IC123	F-4	IC207	G-13	IC271	N-9	Q176	C-12	Q304	J-13	TP116	G-4	TP257	M-10
E1	E-9	IC124	D-2	IC208	G-11	IC272	M-10	Q177	B-12	Q305	J-13	TP117	F-2	TP258	M-11
E2	J-10	IC125	D-3	IC209	H-13	IC273	M-9	Q178	B-12	Q306	H-13	TP118	F-6	TP259	M-9
E3	H-8	IC126	F-7	IC210	H-11	IC274	M-9	Q179	B-12	Q307	J-12	TP119	C-1	TP260	M-10
E4	G-14	IC127	F-5	IC211	H-13	IC275	N-10	Q180	D-4			TP121	D-5	TP261	M-11
E5	F-6	IC128	F-5	IC212	H-11	IC276	M-12	Q191	A-3	RB1	D-14	TP122	B-7	TP262	M-12
E6	G-2	IC129	F-4	IC213	J-9	IC277	M-12	Q192	B-3	RB2	C-14	TP123	D-8	TP263	M-13
E7	D-2	IC130	F-3	IC214	H-9	IC278	N-14	Q193	A-10	RB3	C-14	TP124	C-8	TP264	N-13
E8	D-6	IC131	F-6	IC215	H-9	IC279	M-14	Q201	J-7	RB101	K-14	TP125	D-8	TP265	N-13
E9	C-13	IC132	F-6	IC216	G-9	IC301	J-12	Q202	H-7	RB102	L-14	TP131	D-11	TP301	H-14
E10	B-3	IC133	D-5	IC217	G-9	IC302	J-11	Q203	J-7	RB103	K-14	TP132	C-11	TP302	J-13
E11	B-8	IC134	D-5	IC218	F-9			Q204	J-7			TP133	B-11	TP303	H-12
E12	J-6	IC135	C-6	IC219	E-9	LV101	B-10	Q205	H-7	RV101	E-2	TP141	D-13		
E13	J-4	IC136	C-6	IC220	E-9	LV201	N-13	Q206	H-6	RV102	E-2	TP142	C-12	X101	G-4
E14	K-2	IC137	B-8	IC222	H-5			Q207	K-4	RV103	F-4	TP143	B-12	X102	C-7
E15	L-4	IC138	B-7	IC223	J-4	PS1	B-14	Q208	L-4	RV111	D-8	TP144	D-4	X201	H-4
E16	L-13	IC139	C-5	IC224	K-3	PS2	B-14	Q211	H-8	RV112	C-7	TP151	A-3	X202	L-7
E17	L-6	IC140	C-5	IC225	J-2	PS3	E-14	Q212	G-7	RV113	C-7	TP152	A-3		
E18	M-9	IC141	B-5	IC226	H-7			Q213	H-5	RV114	C-10	TP153	A-5		
E19	C-1	IC142	D-12	IC227	G-5			Q214	H-5	RV115	B-10	TP154	A-5		



FM-29;Frame Synchronizer

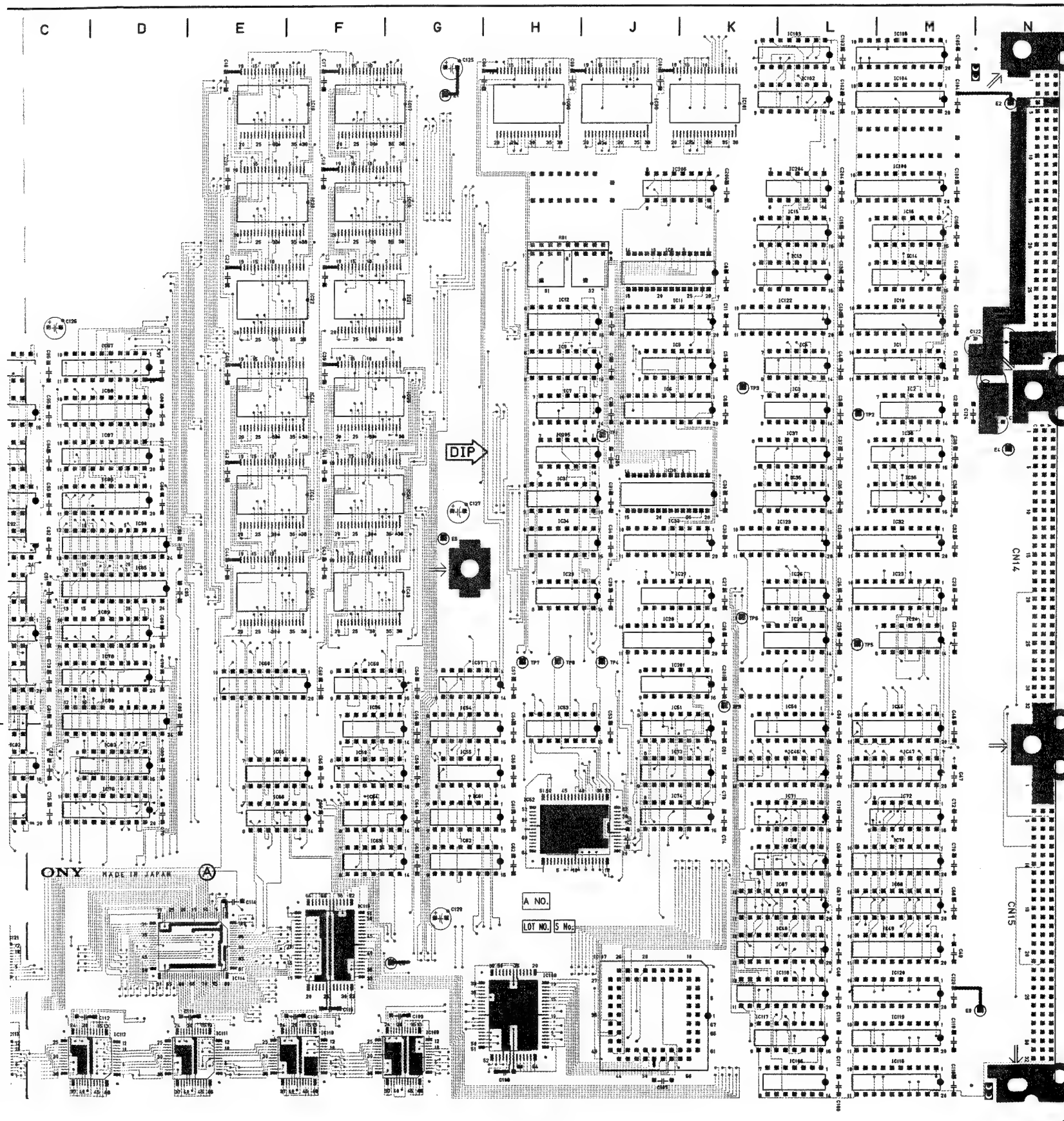
FM-29(1-644-600-11)

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CN13	N-2	IC42	F-5	IC98	H-1
CN14	N-6	IC43	G-6	IC99	J-1
CN15	N-9	IC44	F-6	IC100	M-2
		IC45	M-7	IC101	K-1
		IC46	L-8	IC102	L-1
E1	G-1	IC47	M-8	IC103	L-1
E2	N-1	IC48	L-10	IC104	M-1
E3	B-3	IC49	M-10	IC105	M-1
E4	N-5	IC50	L-7	IC106	L-11
E5	G-6	IC51	K-7	IC107	J-10
E6	B-6	IC52	H-8	IC108	H-10
E7	B-10	IC53	H-7	IC109	G-11
E8	G-10	IC54	G-7	IC110	F-11
E9	M-10	IC55	G-8	IC111	E-11
		IC56	F-7	IC112	D-11
		IC57	G-7	IC113	C-11
IC1	M-4	IC58	F-7	IC114	E-10
IC2	M-4	IC59	F-8	IC115	F-9
IC3	L-4	IC60	E-7	IC116	M-11
IC4	L-4	IC61	G-8	IC117	K-10
IC5	J-4	IC62	G-9	IC118	L-10
IC6	J-4	IC63	F-9	IC119	M-10
IC7	H-4	IC64	F-8	IC120	M-10
IC8	J-3	IC65	E-8	IC121	C-10
IC9	H-4	IC66	E-8	IC122	L-3
IC10	M-3	IC67	L-9	IC123	L-6
IC11	J-3	IC68	M-9	IC201	K-7
IC12	H-3	IC69	L-9	IC202	A-5
IC13	L-3	IC70	M-9	IC203	A-5
IC14	M-3	IC71	L-8	IC204	L-2
IC15	L-2	IC72	M-8	IC205	H-5
IC16	M-2	IC73	K-8	IC206	K-2
IC17	G-1	IC74	K-8		
IC18	F-1	IC75	C-8	PS1	N-3
IC19	G-2	IC76	D-8		
IC20	F-2	IC77	A-7	RB1	H-3
IC21	G-3	IC78	D-7	RB2	B-9
IC22	F-3	IC79	C-7	RB3	A-6
IC23	M-6	IC80	D-7		
IC24	M-6	IC81	B-7	S1	H-3
IC25	L-6	IC82	C-8	S2	J-3
IC26	L-6	IC83	D-8	S3	A-10
IC27	K-6	IC84	C-7	S4	A-9
IC28	J-6	IC85	D-6	S5	A-9
IC29	H-6	IC86	D-5		
IC30	J-5	IC87	D-5	TP1	J-5
IC31	H-5	IC88	D-4	TP2	L-4
IC32	M-6	IC89	D-6	TP3	K-4
IC33	J-6	IC90	D-6	TP4	J-7
IC34	H-6	IC91	B-6	TP5	L-7
IC35	L-5	IC92	C-6	TP6	K-6
IC36	M-5	IC93	C-5	TP7	H-7
IC37	L-5	IC94	C-5	TP8	H-7
IC38	M-5	IC95	C-4	TP9	K-7
IC39	G-4	IC96	C-4		
IC40	F-4				



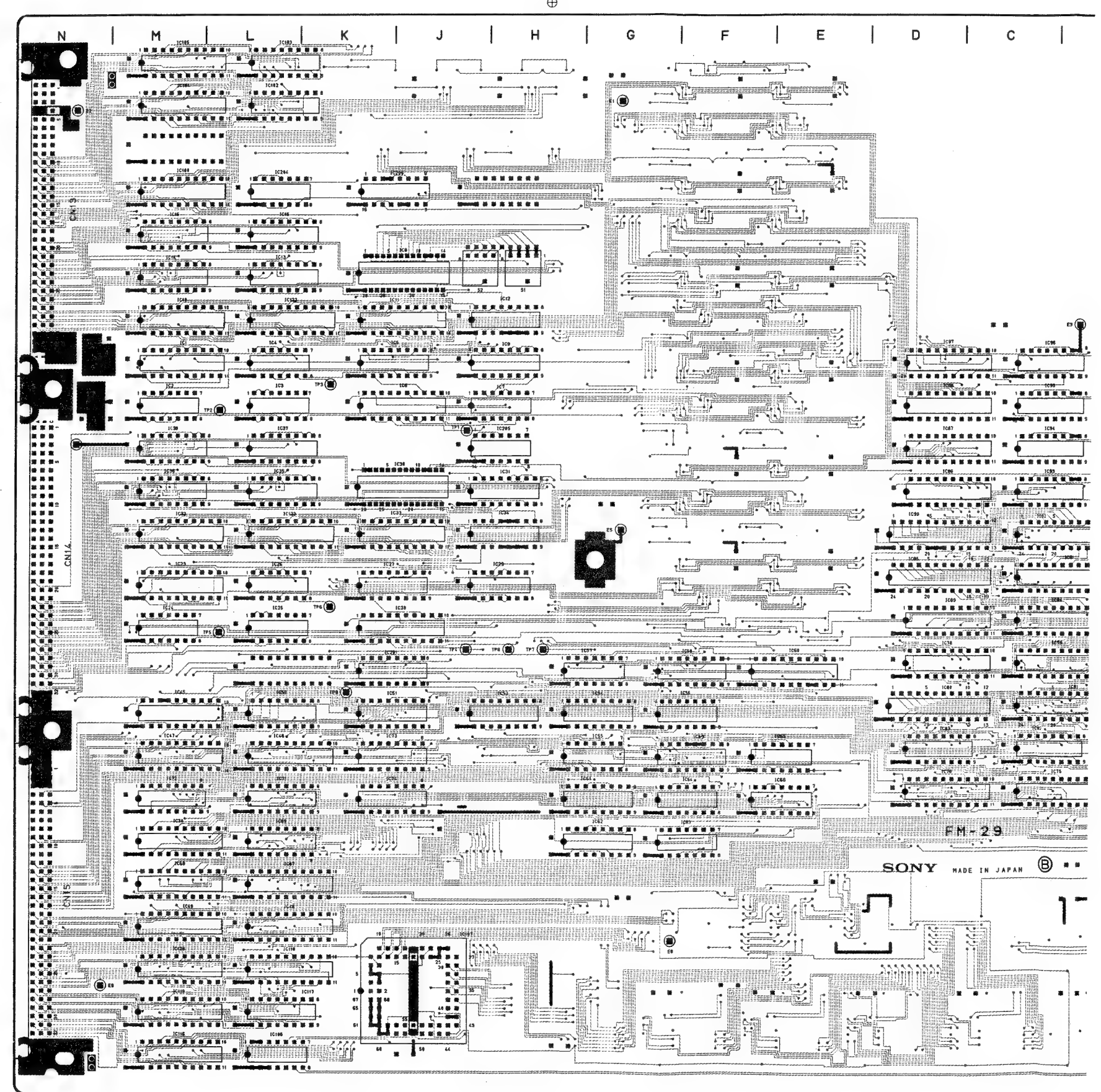


h nizer



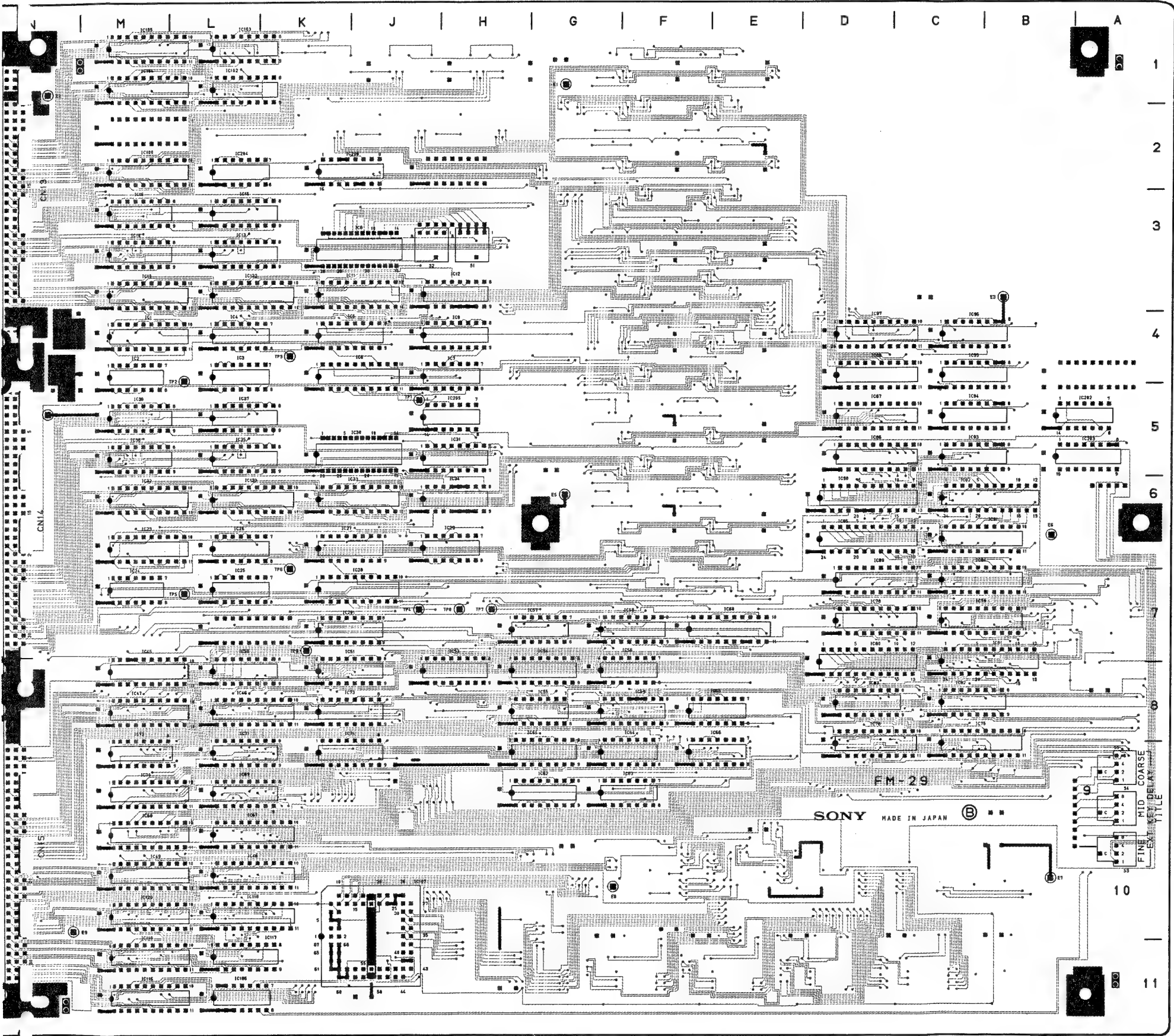


FM-29;Frame Synchronizer





M-29;Frame Synchronizer



FM-29(1-644-600-11)

CN1107	J-10	IC41	G-5	IC97	D-4
		IC42	F-5	IC98	H-1
CN13	N-2	IC43	G-6	IC99	J-1
CN14	N-6	IC44	F-6	IC100	M-2
CN15	N-9	IC45	M-7	IC101	K-1
		IC46	L-8	IC102	L-1
E1	G-1	IC47	M-8	IC103	L-1
E2	N-1	IC48	L-10	IC104	M-1
E3	B-3	IC49	M-10	IC105	M-1
E4	N-5	IC50	L-7	IC106	L-11
E5	G-6	IC51	K-7	IC107	J-10
E6	B-6	IC52	H-8	IC108	H-10
E7	B-10	IC53	H-7	IC109	G-11
E8	G-10	IC54	G-7	IC110	F-11
E9	M-10	IC55	G-8	IC111	E-11
		IC56	F-7	IC112	D-11
IC1	M-4	IC57	G-7	IC113	C-11
IC2	M-4	IC58	F-7	IC114	E-10
IC3	L-4	IC59	F-8	IC115	F-9
IC4	L-4	IC60	E-7	IC116	M-11
IC5	J-4	IC61	G-8	IC117	K-10
IC6	J-4	IC62	G-9	IC118	L-10
IC7	H-4	IC63	F-9	IC119	M-10
IC8	J-3	IC64	F-8	IC120	M-10
IC9	H-4	IC65	E-8	IC121	C-10
IC10	M-3	IC66	E-8	IC122	L-3
IC11	J-3	IC67	L-9	IC123	L-6
IC12	H-3	IC68	M-9	IC201	K-7
IC13	L-3	IC69	L-9	IC202	A-5
IC14	M-3	IC70	M-9	IC203	A-5
IC15	L-2	IC71	L-8	IC204	L-2
IC16	M-2	IC72	M-8	IC205	H-5
IC17	G-1	IC73	K-8	IC206	K-2
IC18	F-1	IC74	K-8		
IC19	G-2	IC75	C-8	PS1	N-3
IC20	F-2	IC76	D-8		
IC21	G-3	IC77	A-7	RB1	H-3
IC22	F-3	IC78	D-7	RB2	B-9
IC23	M-6	IC79	C-7	RB3	A-6
IC24	M-6	IC80	D-7		
IC25	L-6	IC81	B-7	S1	H-3
IC26	L-6	IC82	C-8	S2	J-3
IC27	K-6	IC83	D-8	S3	A-10
IC28	J-6	IC84	C-7	S4	A-9
IC29	H-6	IC85	D-6	S5	A-9
IC30	J-5	IC86	D-5		
IC31	H-5	IC87	D-5	TP1	J-5
IC32	M-6	IC88	D-4	TP2	L-4
IC33	J-6	IC89	D-6	TP3	K-4
IC34	H-6	IC90	D-6	TP4	J-7
IC35	L-5	IC91	B-6	TP5	L-7
IC36	M-5	IC92	C-6	TP6	K-6
IC37	L-5	IC93	C-5	TP7	H-7
IC38	M-5	IC94	C-5	TP8	H-7
IC39	G-4	IC95	C-4	TP9	K-7
IC40	F-4	IC96	C-4		

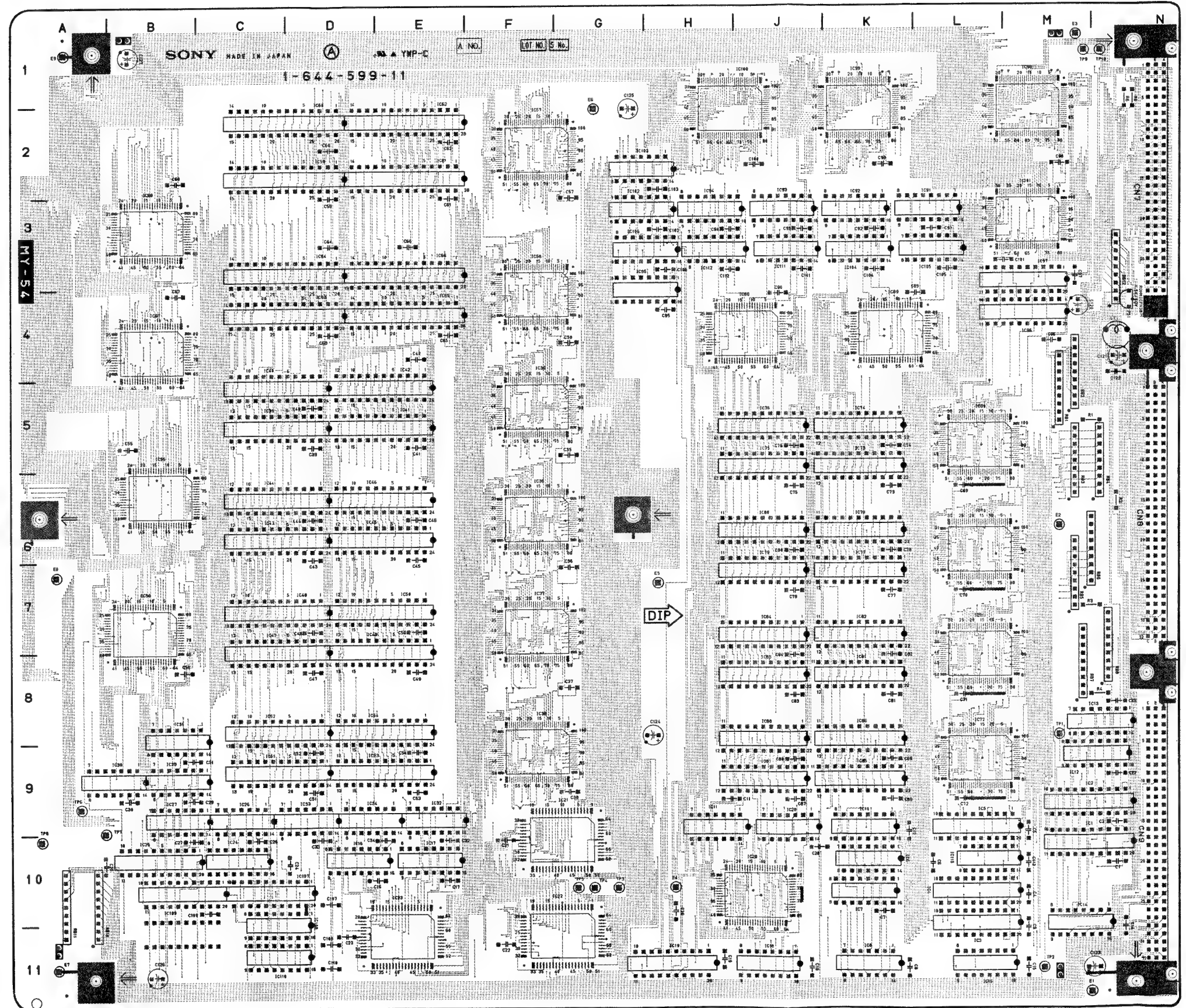
FM-29 -B SIDE-  
1-644-600-11  
DFS-500/500P



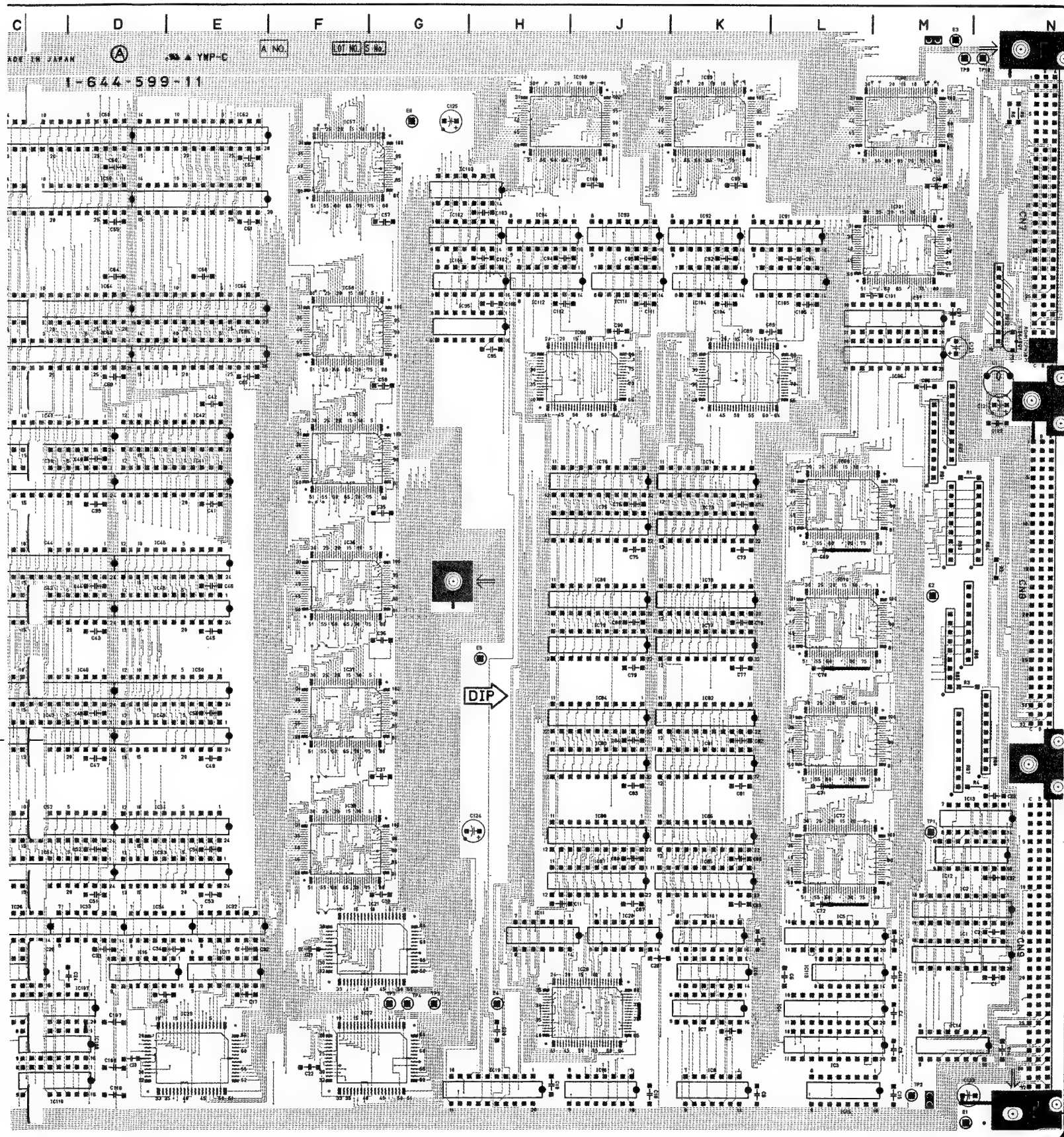
## MY-54;Field Memory

MY-54(1-644-599-11)

CN7	N-2	IC41	E-5	IC94	H-2
CN8	N-6	IC42	E-4	IC95	G-3
CN9	N-9	IC43	C-6	IC96	M-4
		IC44	C-6	IC97	M-3
E1	M-11	IC45	D-6	IC98	M-1
E2	M-6	IC46	D-6	IC99	K-1
E3	M-1	IC47	C-7	IC100	J-1
E4	H-10	IC48	D-7	IC101	M-2
E5	H-7	IC49	D-7	IC102	G-2
E6	G-1	IC50	E-7	IC103	H-2
E7	A-11	IC51	C-9	IC104	K-3
E8	A-7	IC52	C-8	IC105	L-3
E9	A-1	IC53	D-9	IC106	G-3
		IC54	D-8	IC107	D-10
IC1	M-9	IC55	B-5	IC108	D-11
IC2	M-9	IC56	B-7	IC109	B-10
IC3	L-11	IC57	F-2	IC110	C-11
IC4	L-10	IC58	F-3	IC111	J-3
IC5	L-9	IC59	D-2	IC112	H-3
IC6	K-10	IC60	D-1	IC113	L-10
IC7	K-10	IC61	E-2		
IC8	K-11	IC62	E-1	PS1	N-4
IC10	K-9	IC63	D-4		
IC11	H-9	IC64	D-3	RB1	M-5
IC12	M-9	IC65	E-4	RB2	M-5
IC13	N-8	IC66	E-3	RB3	M-6
IC14	M-10	IC67	B-4	RB4	N-6
IC15	L-11	IC68	B-2	RB5	M-7
IC16	D-10	IC69	L-5	RB6	N-7
IC17	E-10	IC70	L-6	RB7	M-8
IC18	J-11	IC71	L-7	RB8	N-8
IC19	H-11	IC72	L-8	RB10	A-11
IC20	J-10	IC73	K-5	RB11	A-11
IC21	G-9	IC74	K-5	RB12	N-3
IC22	G-10	IC75	J-5		
IC23	E-10	IC76	J-5	TP1	M-8
IC24	C-10	IC77	K-6	TP2	M-11
IC25	B-10	IC78	K-6	TP3	G-10
IC26	C-9	IC79	J-6	TP4	G-10
IC27	B-9	IC80	J-6	TP5	G-10
IC28	J-9	IC81	K-8	TP6	A-9
IC29	B-9	IC82	K-7	TP7	B-9
IC30	B-9	IC83	J-8	TP8	B-9
IC31	B-8	IC84	J-7	TP9	M-1
IC32	E-9	IC85	K-9	TP10	N-1
IC33	D-9	IC86	K-8		
IC34	D-9	IC87	J-9		
IC35	F-4	IC88	J-8		
IC36	F-6	IC89	K-3		
IC37	F-7	IC90	J-4		
IC38	F-8	IC91	L-2		
IC39	C-5	IC92	K-2		
IC40	C-4	IC93	J-2		





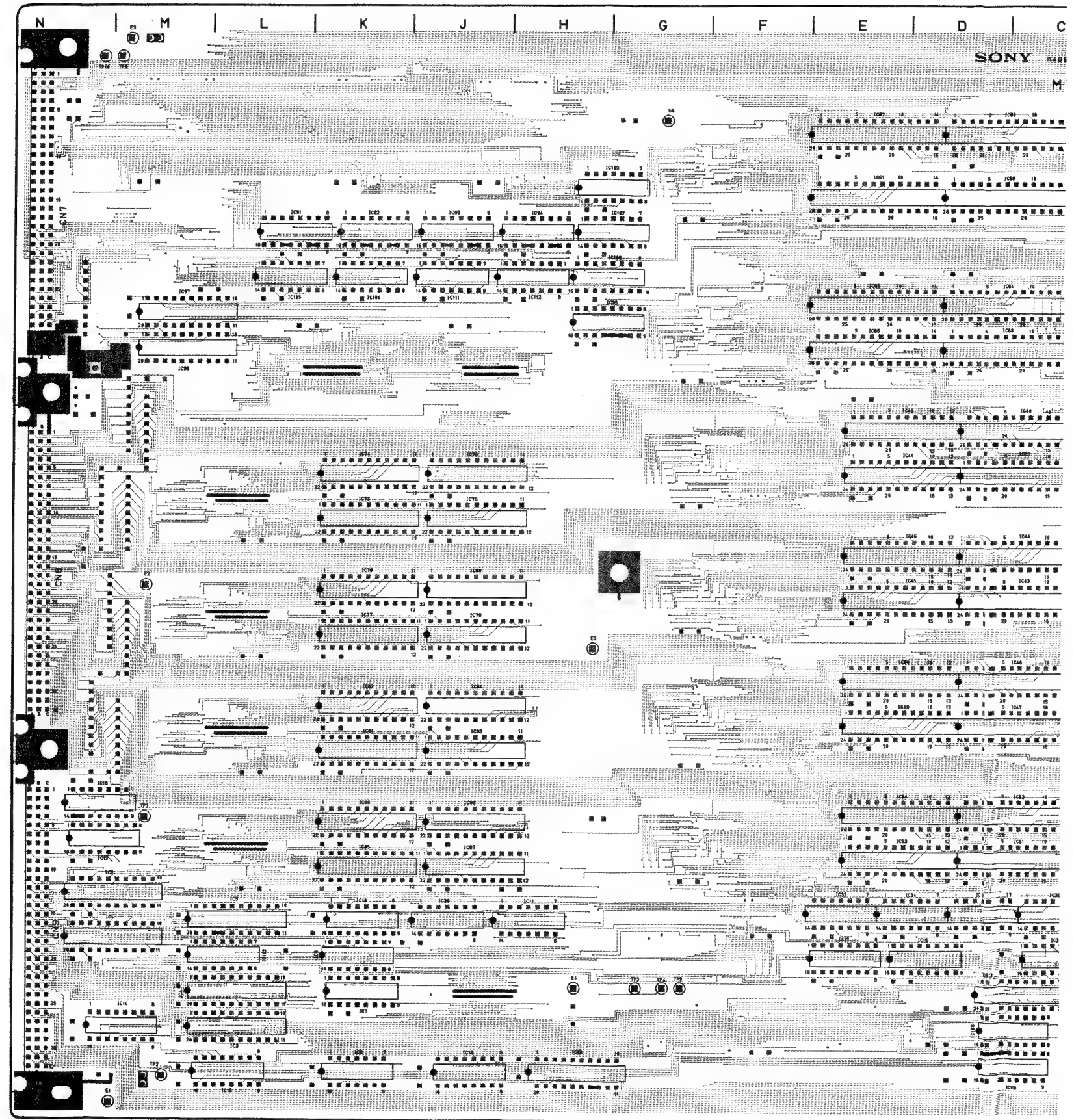


MY-54 -A SIDE-

1-644-599-11  
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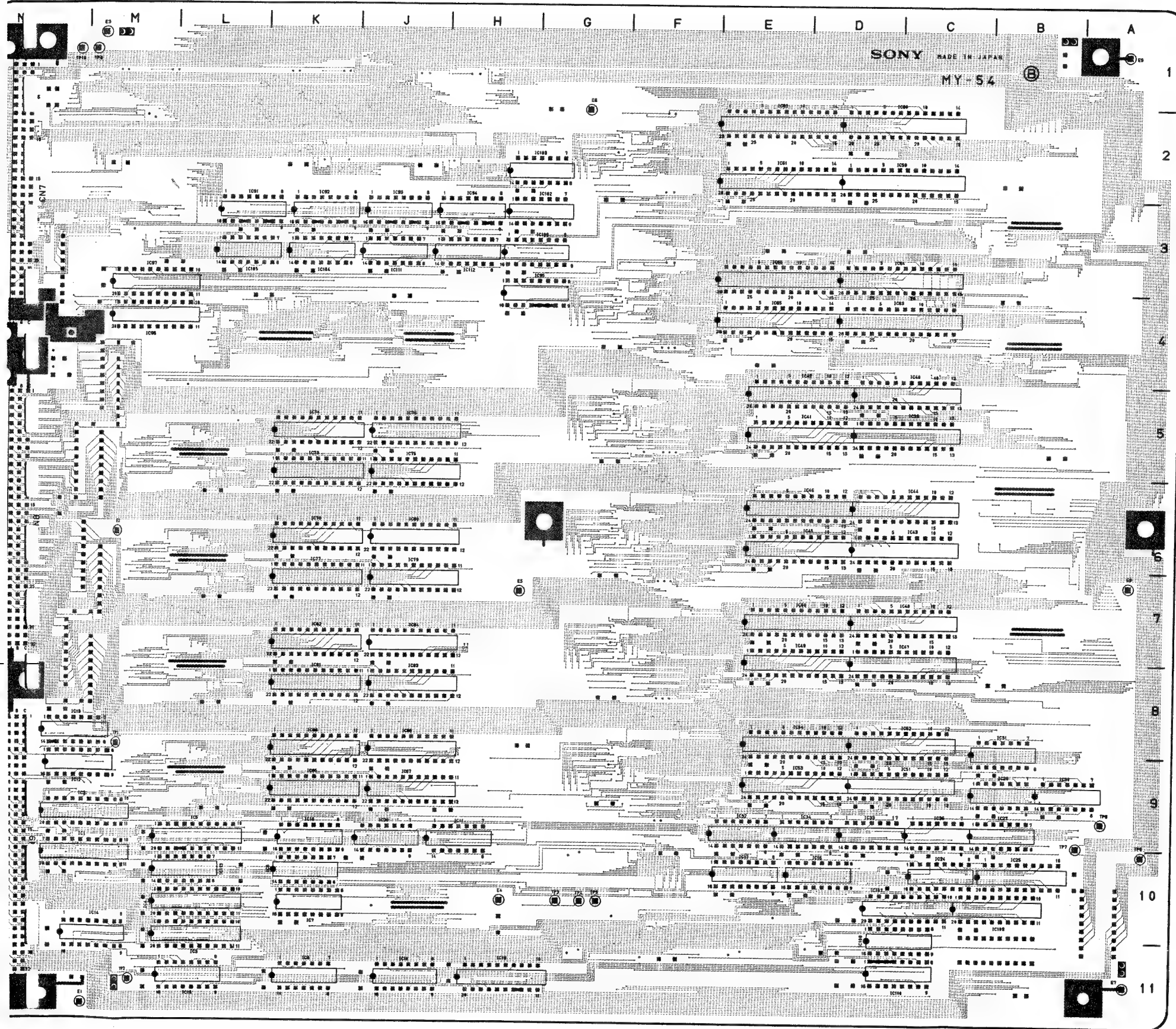


MY-54;Field Memory





MY-54; Field Memory



MY-54(1-644-599-11)

CN7	N-2	IC41	E-5	IC94	H-2
CN8	N-6	IC42	E-4	IC95	G-3
CN9	N-9	IC43	C-6	IC96	M-4
		IC44	C-6	IC97	M-3
E1	M-11	IC45	D-6	IC98	M-1
E2	M-6	IC46	D-6	IC99	K-1
E3	M-1	IC47	C-7	IC100	J-1
E4	H-10	IC48	D-7	IC101	M-2
E5	H-7	IC49	D-7	IC102	G-2
E6	G-1	IC50	E-7	IC103	H-2
E7	A-11	IC51	C-9	IC104	K-3
E8	A-7	IC52	C-8	IC105	L-3
E9	A-1	IC53	D-9	IC106	G-3
		IC54	D-8	IC107	D-10
IC1	M-9	IC55	B-5	IC108	D-11
IC2	M-9	IC56	B-7	IC109	B-10
IC3	L-11	IC57	F-2	IC110	C-11
IC4	L-10	IC58	F-3	IC111	J-3
IC5	L-9	IC59	D-2	IC112	H-3
IC6	K-10	IC60	D-1	IC113	L-10
IC7	K-10	IC61	E-2		
IC8	K-11	IC62	E-1	PS1	N-4
IC10	K-9	IC63	D-4		
IC11	H-9	IC64	D-3	RB1	M-5
IC12	M-9	IC65	E-4	RB2	M-5
IC13	N-8	IC66	E-3	RB3	M-6
IC14	M-10	IC67	B-4	RB4	N-6
IC15	L-11	IC68	B-2	RB5	M-7
IC16	D-10	IC69	L-5	RB6	N-7
IC17	E-10	IC70	L-6	RB7	M-8
IC18	J-11	IC71	L-7	RB8	N-8
IC19	H-11	IC72	L-8	RB10	A-1 1
IC20	J-10	IC73	K-5	RB11	A-1 1
IC21	G-9	IC74	K-5	RB12	N-3
IC22	G-10	IC75	J-5		
IC23	E-10	IC76	J-5	TP1	M-3
IC24	C-10	IC77	K-6	TP2	M-11
IC25	B-10	IC78	K-6	TP3	G-10
IC26	C-9	IC79	J-6	TP4	G-10
IC27	B-9	IC80	J-6	TP5	G-10
IC28	J-9	IC81	K-8	TP6	A-1
IC29	B-9	IC82	K-7	TP7	B-1
IC30	B-9	IC83	J-8	TP8	B-1
IC31	B-8	IC84	J-7	TP9	M-1
IC32	E-9	IC85	K-9	TP10	N-1
IC33	D-9	IC86	K-8		
IC34	D-9	IC87	J-9		
IC35	F-4	IC88	J-8		
IC36	F-6	IC89	K-3		
IC37	F-7	IC90	J-4		
IC38	F-8	IC91	L-2		
IC39	C-5	IC92	K-2		
IC40	C-4	IC93	J-2		

MY-54 -B SIDE-

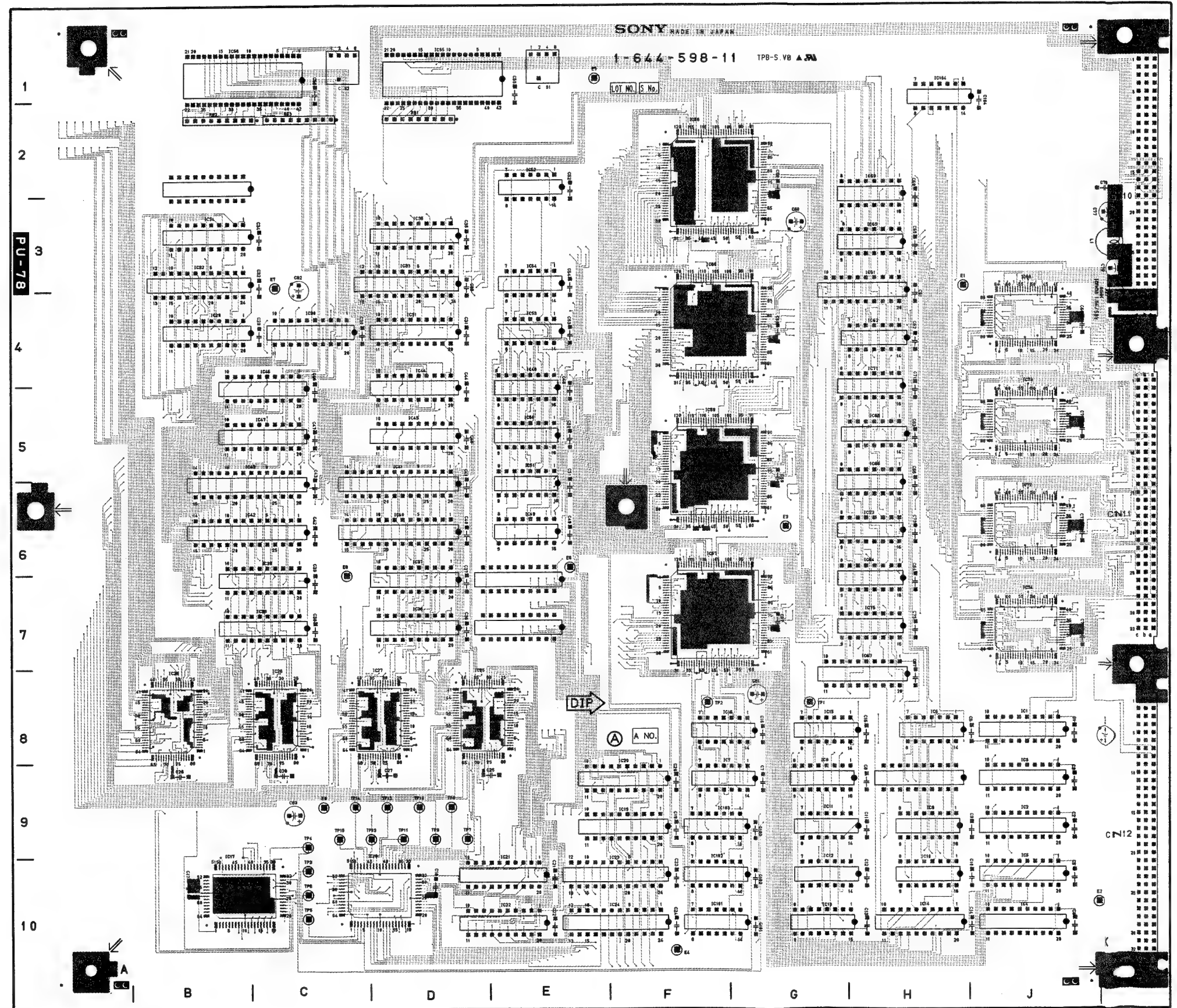
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PU-78; Address Operation

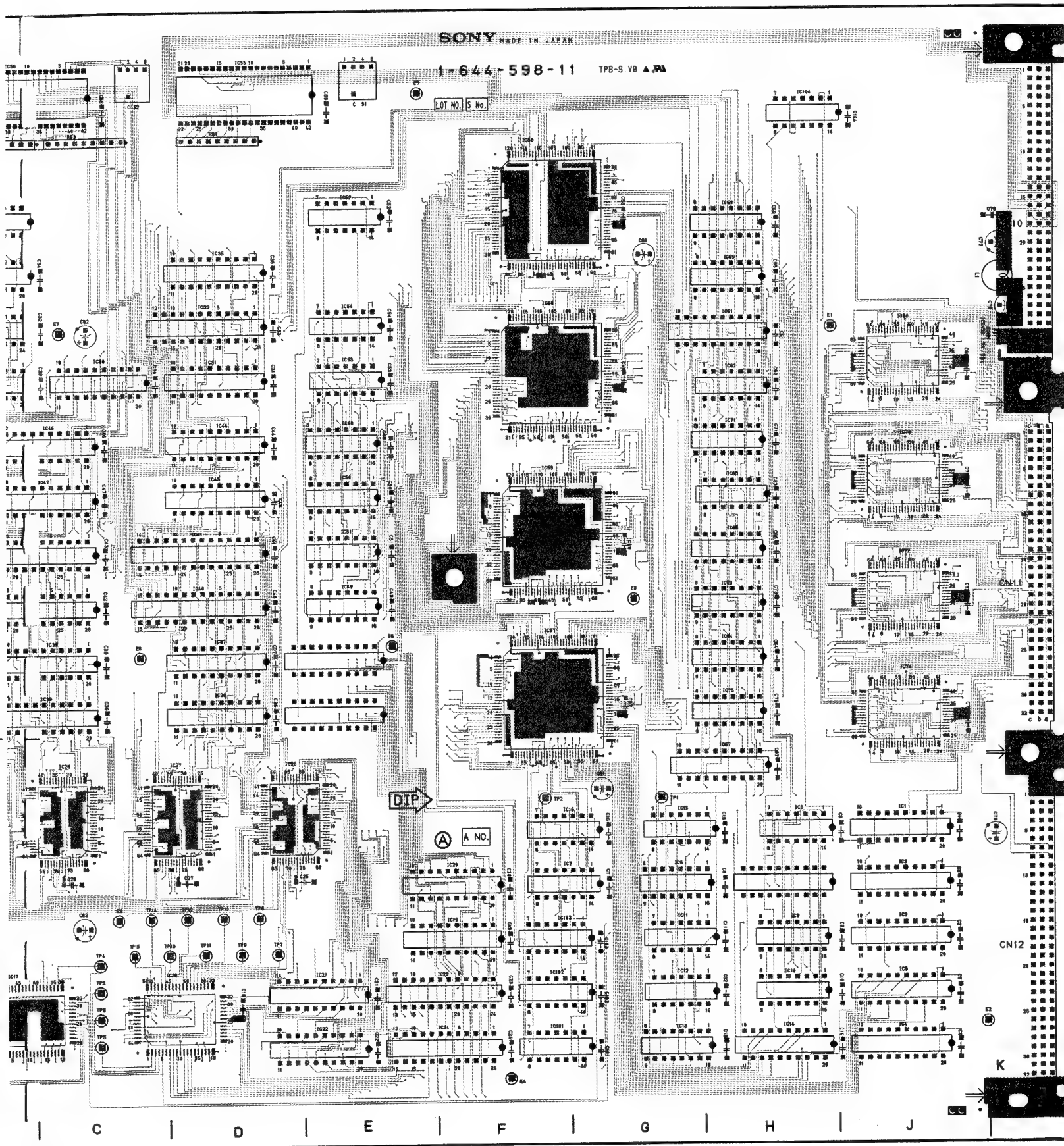
PU-78(1-644-598-11)

CN10	K-2	IC40	D-6	TP4	C-9
CN11	K-6	IC41	D-5	TP5	C-10
CN12	K-9	IC42	C-6	TP6	C-10
		IC43	C-5	TP7	D-9
E1	H-3	IC44	D-4	TP8	D-9
E2	J-10	IC45	D-5	TP9	D-9
E3	G-6	IC46	C-4	TP10	D-9
E4	F-10	IC47	C-5	TP11	D-9
E5	E-1	IC48	E-4	TP12	D-9
E6	E-6	IC49	E-6	TP13	D-9
E7	C-3	IC50	E-5	TP14	C-9
E8	C-6	IC51	E-5	TP15	C-9
E9	C-9	IC52	E-2		
		IC53	E-4		
IC1	J-8	IC54	E-3		
IC2	J-9	IC55	D-1		
IC3	J-8	IC56	B-1		
IC4	J-10	IC57	F-6		
IC5	J-10	IC58	F-2		
IC6	H-8	IC59	F-5		
IC7	F-8	IC60	F-3		
IC8	G-8	IC61	H-3		
IC9	H-9	IC62	H-4		
IC10	H-10	IC63	H-5		
IC11	G-9	IC64	H-6		
IC12	G-10	IC65	H-3		
IC13	G-10	IC66	H-5		
IC14	H-10	IC67	H-7		
IC15	G-8	IC68	J-3		
IC16	F-8	IC69	H-2		
IC17	B-9	IC70	J-4		
IC18	D-9	IC71	H-4		
IC19	F-9	IC72	J-6		
IC20	F-8	IC73	H-6		
IC21	E-10	IC74	J-7		
IC22	E-10	IC75	H-7		
IC23	F-10	IC101	F-10		
IC24	F-10	IC102	F-10		
IC25	D-8	IC103	F-9		
IC26	B-8	IC104	H-1		
IC27	D-8				
IC28	C-8	PS1	K-4		
IC29	B-4				
IC30	C-4	RB1	D-2		
IC31	D-4	RB2	B-2		
IC32	B-3	RB3	C-2		
IC33	D-3				
IC34	B-3	S1	E-1		
IC35	D-3	S2	C-1		
IC36	D-7				
IC37	D-6	TP1	G-8		
IC38	C-7	TP2	F-8		
IC39	C-6	TP3	C-10		





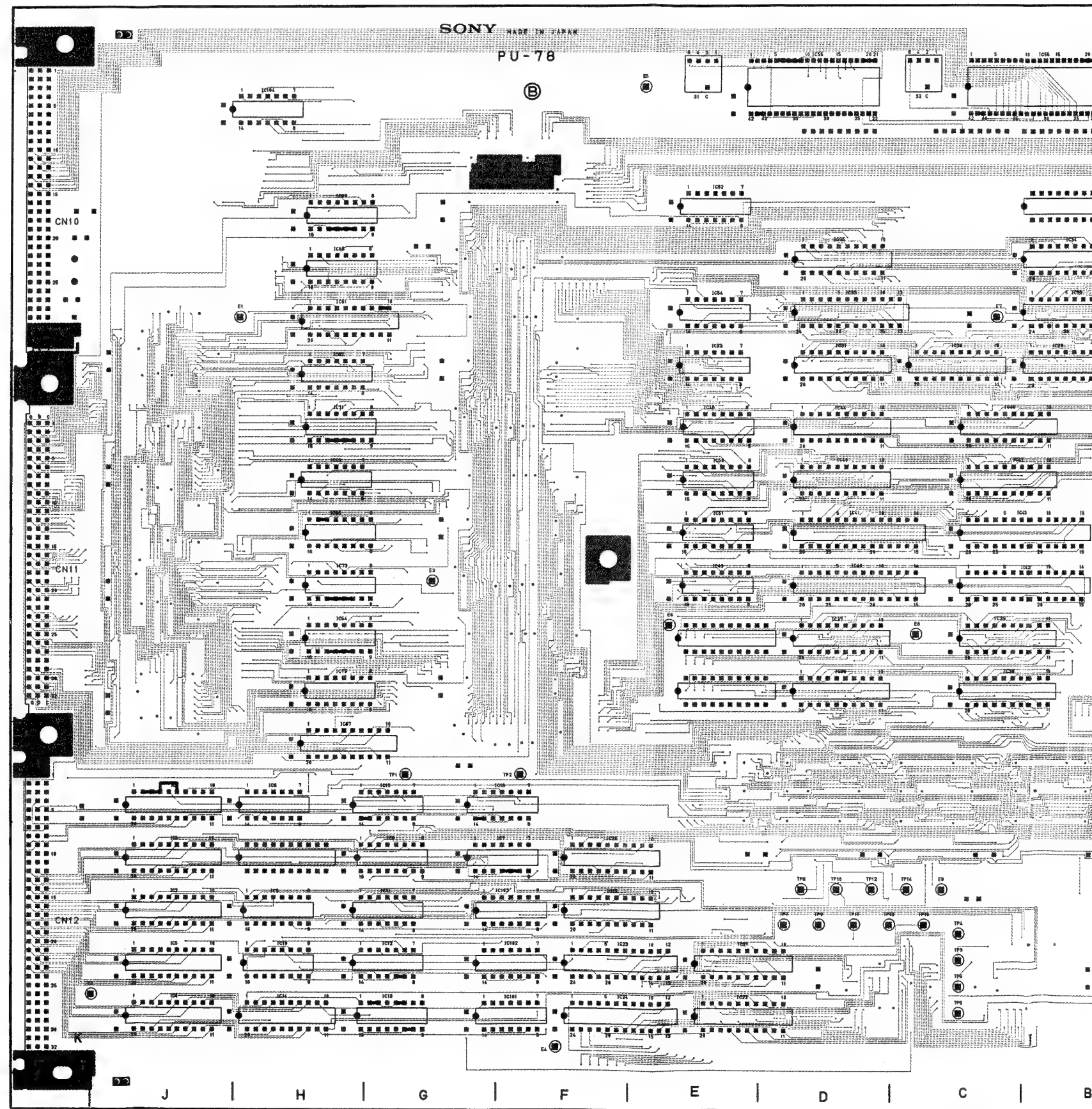
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PU-78 -A SIDE-  
1-644-598-11  
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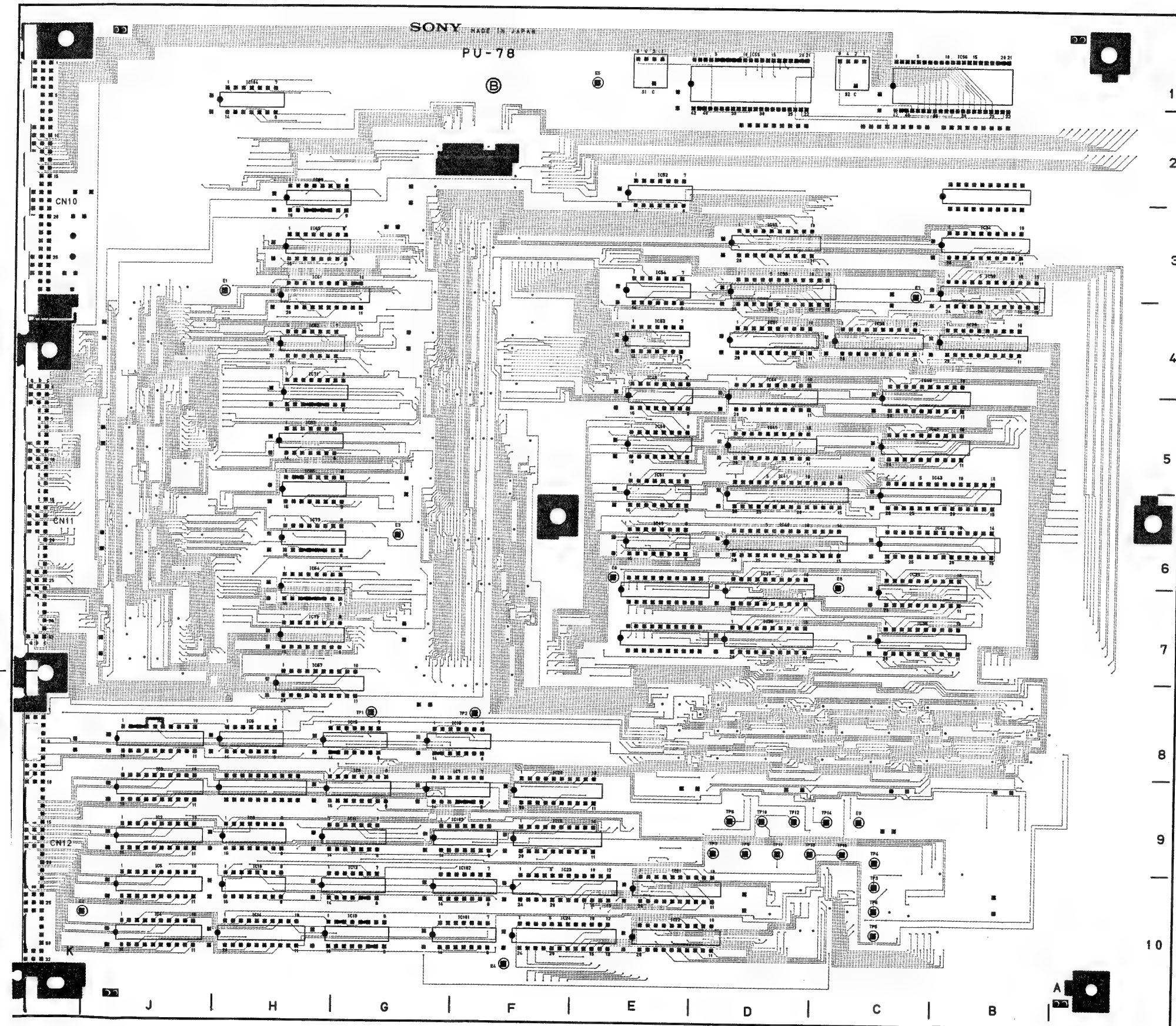


### PU-78; Address Operation





J-78;Address Operation



PU-78(1-644-598-11)

CN10	K-2	IC40	D-6	TP4	C-9
CN11	K-6	IC41	D-5	TP5	C-10
CN12	K-9	IC42	C-6	TP6	C-10
		IC43	C-5	TP7	D-9
E1	H-3	IC44	D-4	TP8	D-9
E2	J-10	IC45	D-5	TP9	D-9
E3	G-6	IC46	C-4	TP10	D-9
E4	F-10	IC47	C-5	TP11	D-9
E5	E-1	IC48	E-4	TP12	D-9
E6	E-6	IC49	E-6	TP13	D-9
E7	C-3	IC50	E-5	TP14	C-9
E8	C-6	IC51	E-5	TP15	C-9
E9	C-9	IC52	E-2		
		IC53	E-4		
IC1	J-8	IC54	E-3		
IC2	J-9	IC55	D-1		
IC3	J-8	IC56	B-1		
IC4	J-10	IC57	F-6		
IC5	J-10	IC58	F-2		
IC6	H-8	IC59	F-5		
IC7	F-8	IC60	F-3		
IC8	G-8	IC61	H-3		
IC9	H-9	IC62	H-4		
IC10	H-10	IC63	H-5		
IC11	G-9	IC64	H-6		
IC12	G-10	IC65	H-3		
IC13	G-10	IC66	H-5		
IC14	H-10	IC67	H-7		
IC15	G-8	IC68	J-3		
IC16	F-8	IC69	H-2		
IC17	B-9	IC70	J-4		
IC18	D-9	IC71	H-4		
IC19	F-9	IC72	J-6		
IC20	F-8	IC73	H-6		
IC21	E-10	IC74	J-7		
IC22	E-10	IC75	H-7		
IC23	F-10	IC101	F-10		
IC24	F-10	IC102	F-10		
IC25	D-8	IC103	F-9		
IC26	B-8	IC104	H-1		
IC27	D-8				
IC28	C-8	PS1	K-4		
IC29	B-4				
IC30	C-4	RB1	D-2		
IC31	D-4	RB2	B-2		
IC32	B-3	RB3	C-2		
IC33	D-3				
IC34	B-3	S1	E-1		
IC35	D-3	S2	C-1		
IC36	D-7				
IC37	D-6	TP1	G-8		
IC38	C-7	TP2	F-8		
IC39	C-6	TP3	C-10		

PU-78 -B SIDE-

1-644-598-11  
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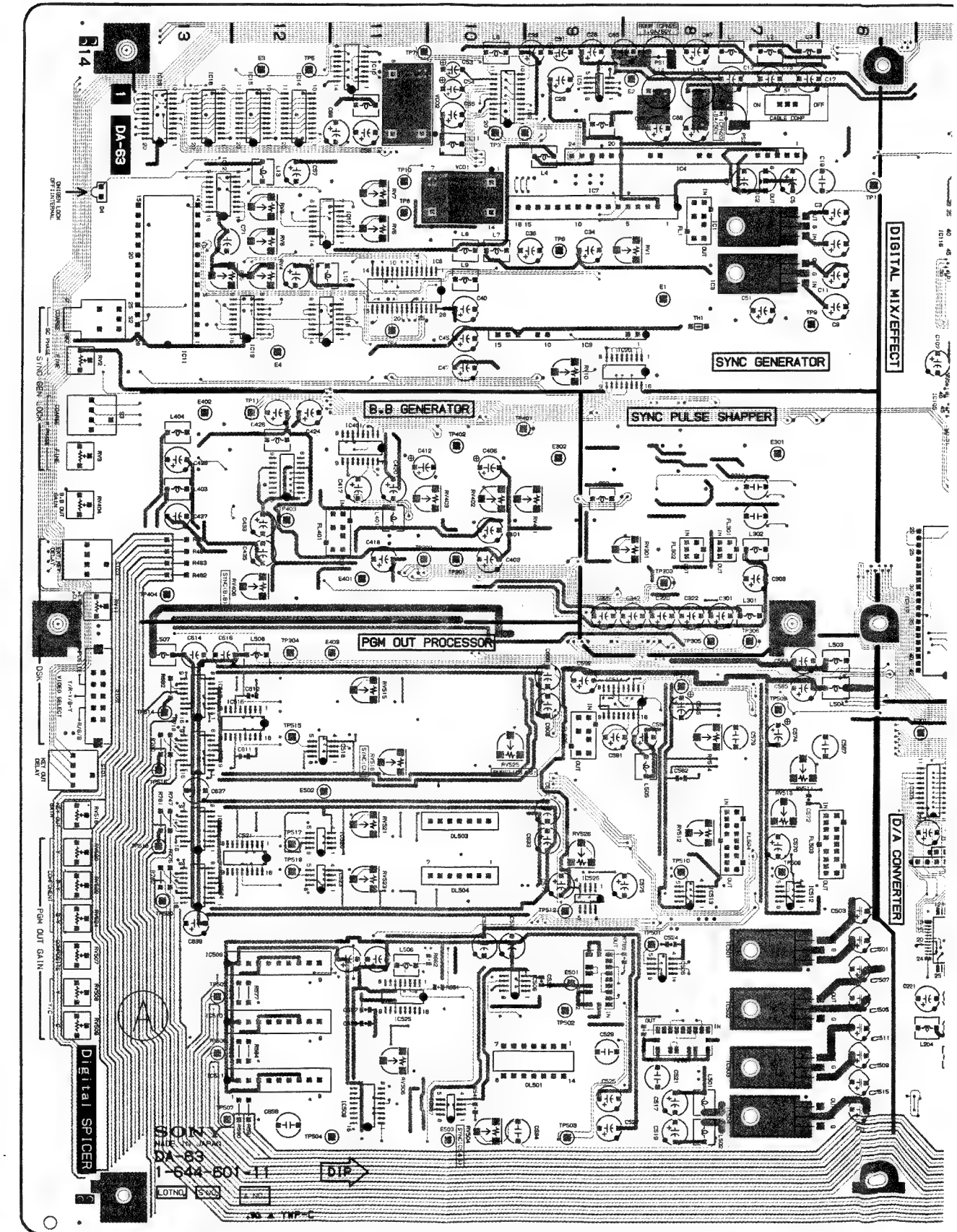
## DA-63;D/A Converter

DA-63(1-644-601-11)

CN1	B-1	IC101	G-3	⊙JR10	*C-11	Q416	*D-12	Q567	*J-12	RV526	H-9
CN2	F-1	IC102	F-3	JR11	*C-11	Q417	*D-12	Q568	*J-13		
CN3	K-1	IC103	D-2	⊙JR12	*C-11	Q418	*D-13	Q572	*H-10	S1	A-7
CN40	H-1	IC104	D-3	JR13	*C-9	Q419	*D-13	Q573	*H-11	S2	C-14
CN50	D-1	IC105	D-5	⊙JR14	*C-9	Q420	*E-12	Q574	*G-9	S3	D-14
		IC108	E-4	JR15	*C-9	Q421	*E-12	Q577	*H-9	S101	H-14
DL501	L-9	IC109	F-4	⊙JR16	*C-9	Q422	*E-12	Q578	*J-9	S102	G-14
DL503	H-10	IC110	F-4	JR17	*A-12	Q423	*F-12			S103	F-14
DL504	J-10	IC111	J-4	⊙JR18	*A-12	Q424	*E-13	RB101	A-1	TH1	C-8
		IC112	E-4	⊙JR20	*A-12	Q425	*E-13	RB102	A-1		
D1	*C-9	IC114	B-2	JR21	*A-11	Q426	*E-13	RB103	A-1	TP1	B-6
D2	*B-11	IC115	B-4	⊙JR22	*A-11	Q427	*E-9	RB104	G-1	TP2	A-9
D3	*B-12	IC116	B-5	JR401	*D-10	Q428	*F-12	RB105	G-1	TP3	A-10
D4	B-14	IC117	F-6	⊙JR402	*D-10	Q501	*L-8	RB106	F-1	TP4	C-11
		IC118	J-3	JR403	*E-11	Q502	*L-7	RB107	F-1	TP5	A-12
E1	C-8	IC119	J-3			Q503	*K-8	RB108	G-2	TP6	B-9
E2	A-8	IC201	K-3	PS1	A-8	Q506	*L-8	RB109	G-2	TP7	A-11
E3	A-12	IC202	L-3	PS2	A-7	Q507	*K-8	RB110	F-2	TP8	B-11
E4	D-12	IC203	H-4	PS3	C-1	Q508	*K-9	RB111	F-2	TP9	C-7
E101	H-2	IC204	H-4			Q512	*L-9	RB112	D-1	TP10	B-11
E102	B-4	IC205	H-5	Q1	*A-6	Q514	*L-10	RB113	D-1	TP11	D-12
E103	E-3	IC206	J-4	Q2	*A-6	Q515	*L-10	RB114	C-1	TP201	G-5
E201	G-5	IC207	J-5	Q3	*A-9	Q516	*L-10	RB115	C-1	TP202	G-5
E202	L-4	IC208	K-4	Q4	*A-10	Q517	*L-11	RB202	H-4	TP203	L-4
E301	D-7	IC401	D-11	Q5	*B-8	Q518	*L-10	RB203	J-4	TP204	L-5
E302	D-9	IC402	E-12	Q6	*C-8	Q519	*K-11	RB204	J-5	TP205	L-5
E401	F-11	IC501	K-7	Q7	*C-7	Q520	*K-11	RB205	K-4	TP206	L-4
E402	D-13	IC502	K-7	Q8	*C-7	Q522	*G-6	RV1	B-8	TP301	F-10
E403	F-11	IC503	L-7	Q9	*A-11	Q523	*H-6	RV2	D-14	TP302	E-11
E501	K-9	IC504	L-7	Q10	*B-13	Q524	*J-6	RV3	E-14	TP303	F-8
E502	H-12	IC505	K-8	Q11	*B-12	Q525	*H-9	RV4	C-12	TP304	F-12
E503	L-10	IC506	K-9	Q201	*K-4	Q526	*J-7	RV5	C-12	TP305	F-8
		IC507	L-10	Q202	*K-4	Q527	*H-7	RV6	B-11	TP306	F-7
FL1	B-8	IC508	L-11	Q203	*K-4	Q528	*H-7	RV7	B-11	TP401	D-9
FL301	E-7	IC509	K-13	Q204	*L-4	Q529	*G-7	RV8	B-12	TP403	E-12
FL302	E-8	IC510	K-13	Q301	*D-9	Q530	*G-7	RV9	B-12	TP404	F-13
FL401	E-12	IC511	L-13	Q302	*E-9	Q531	*H-7	RV10	D-9	TP501	J-8
FL501	L-8	IC512	J-7	Q303	*E-9	Q532	*J-7	RV11	F-14	TP502	K-9
FL502	K-9	IC513	J-8	Q304	*F-9	Q533	*J-8	RV301	E-8	TP503	L-9
FL503	J-7	IC514	G-9	Q305	*D-8	Q534	*H-7	⊙RV401	E-9	TP504	L-12
FL504	H-7	IC516	G-12	Q306	*E-8	Q535	*H-8	RV402	E-10	TP505	K-13
FL505	G-9	IC517	G-13	Q307	*E-8	Q536	*G-8	⊙RV403	E-10	TP506	L-13
		IC518	H-13	Q308	*E-7	Q537	*G-8	RV404	E-14	TP507	L-13
IC1	B-8	IC519	H-13	Q309	*D-7	Q538	*G-8	RV406	F-12	TP508	J-7
IC2	B-7	IC520	H-11	Q311	*E-7	Q540	*K-10	RV504	L-10	TP509	G-7
IC3	C-8	IC521	H-12	Q312	*F-7	Q541	*K-10	RV506	L-11	TP510	J-8
IC4	B-8	IC522	H-13	Q313	*D-8	Q542	*K-10	RV507	K-14	TP511	G-8
IC5	A-9	IC523	J-11	Q315	*E-8	Q545	*G-11	RV508	K-14	TP512	J-9
IC6	A-9	IC524	J-13	Q316	*F-8	Q546	*G-12	RV509	K-14	TP514	G-13
IC7	B-9	IC525	K-11	⊙Q401	*E-10	Q548	*G-12	RV511	H-7	TP515	G-12
IC8	C-10	IC526	J-9	Q402	*E-9	Q549	*G-13	RV512	H-8	TP516	H-13
IC9	C-9	IC601	K-2	Q403	*D-10	Q551	*G-11	⊙RV513	H-7	TP517	H-12
IC10	A-11	IC602	J-2	⊙Q404	*E-10	Q553	*H-12	RV514	H-8	TP518	J-13
IC11	C-13	IC603	H-1	⊙Q405	*D-11	Q554	*H-13	RV515	G-11	TP519	J-12
IC12	B-13			Q406	*D-11	Q556	*J-10	RV516	H-14	TP520	J-13
IC13	C-12	JR1	*A-11	⊙Q407	*E-11	Q557	*H-11	RV518	H-11		
IC14	A-12	⊙JR2	*A-10	Q408	*D-11	Q558	*J-11	RV520	J-14	VCO1	B-10
IC15	A-12	JR3	*J-10	Q409	*E-11	Q560	*H-12	RV521	H-11	VCO2	A-10
IC16	A-13	⊙JR4	*J-10	Q410	*F-12	Q561	*H-13	RV522	J-14		
IC17	B-11	JR5	*J-10	Q411	*F-12	Q563	*J-10	RV523	J-11		
IC18	C-11	⊙JR6	*J-10	Q413	*E-12	Q564	*J-11	RV524	J-14		
IC19	A-13	JR7	*C-11	Q414	*E-12	Q565	*J-11	RV525	H-10		
IC20	C-8	JR9	*C-11	Q415	*D-12						

\*:SOLDERING SIDE

⊙:EK ONLY



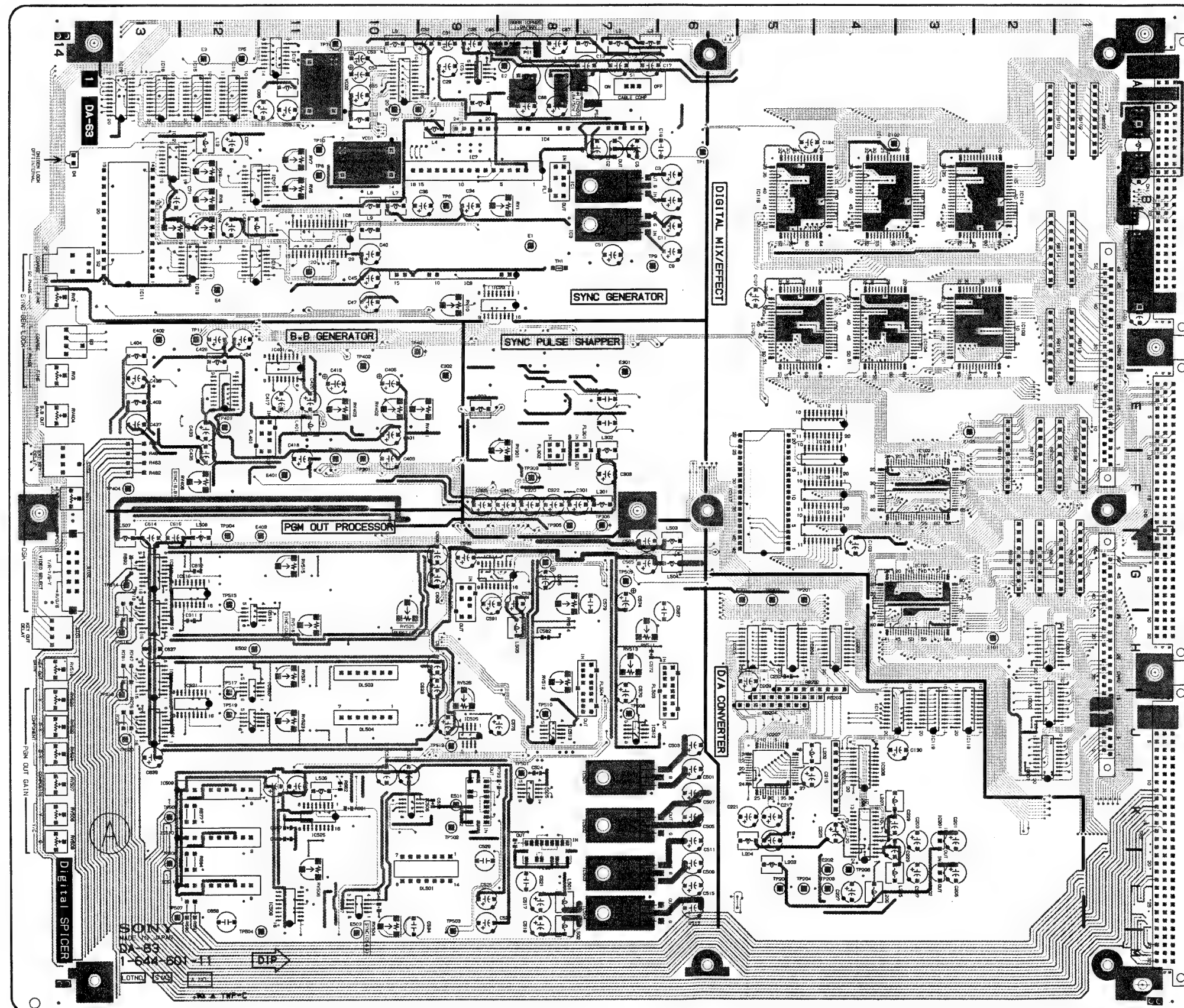


DA-63;D/A Converter

J-12	RV526	H-9
J-13		
H-10	S1	A-7
H-11	S2	C-14
G-9	S3	D-14
H-9	S101	H-14
J-1	S102	G-14
	S103	F-14
A-1		
A-1	TH1	C-8
A-1		
G-1	TP1	B-6
F-1	TP2	A-9
F-1	TP3	A-10
G-1	TP4	C-11
G-2	TP5	A-12
F-2	TP6	B-9
F-2	TP7	A-11
F-2	TP8	B-11
D-1	TP9	C-7
D-1	TP10	B-11
C-1	TP11	D-12
C-1	TP201	G-5
H-1	TP202	G-5
J-1	TP203	L-4
J-5	TP204	L-5
K-1	TP205	L-5
	TP206	L-4
B-1	TP301	F-10
D-14	TP302	E-11
E-14	TP303	F-8
C-1	TP304	F-12
C-1	TP305	F-8
B-11	TP306	F-7
B-11	TP401	D-9
B-1	TP403	E-12
B-1	TP404	F-13
D-9	TP501	J-8
F-14	TP502	K-9
E-1	TP503	L-9
E-1	TP504	L-12
E-10	TP505	K-13
E-10	TP506	L-13
E-1	TP507	L-13
F-1	TP508	J-7
L-10	TP509	G-7
L-11	TP510	J-8
K-1	TP511	G-8
K-1	TP512	J-9
K-1	TP514	G-13
H-7	TP515	G-12
H-8	TP516	H-13
H-1	TP517	H-12
H-1	TP518	J-13
G-11	TP519	J-12
H-14	TP520	J-13
H-1		
J-1	VC01	B-10
H-11	VC02	A-10
J-14		
J-1		
J-1		
H-10		

\*:SOLDERING SIDE

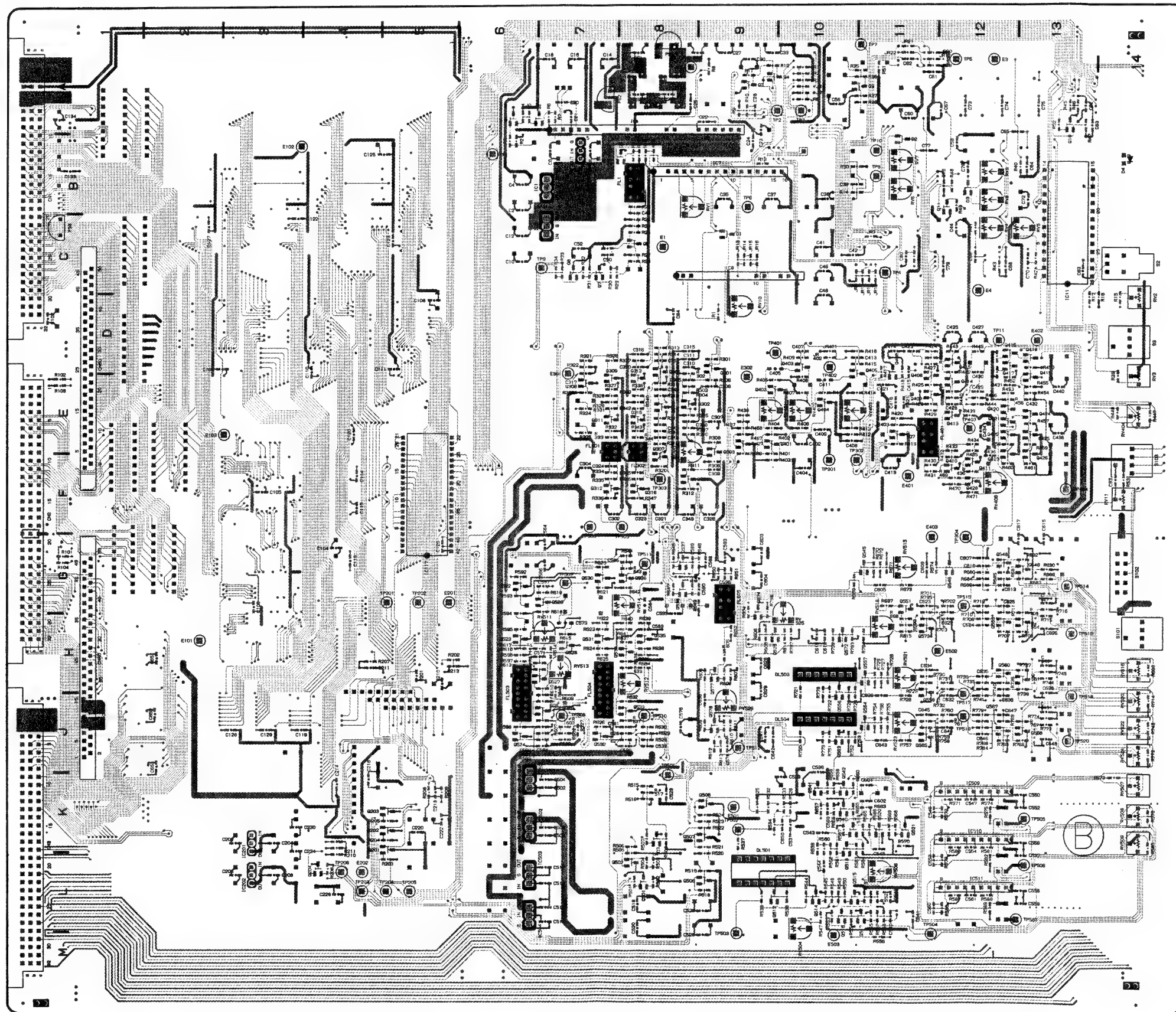
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DA-63 -A SIDE-  
1-644-601-11  
DFS-500/500P



## DA-63; D/A Converter



DA-63 -B SIDE-

1-644-601-11  
DFS-500/500P

**D A .**

CN1  
CN2  
CN3  
CN4  
CN5

DL£  
DL£  
DL£

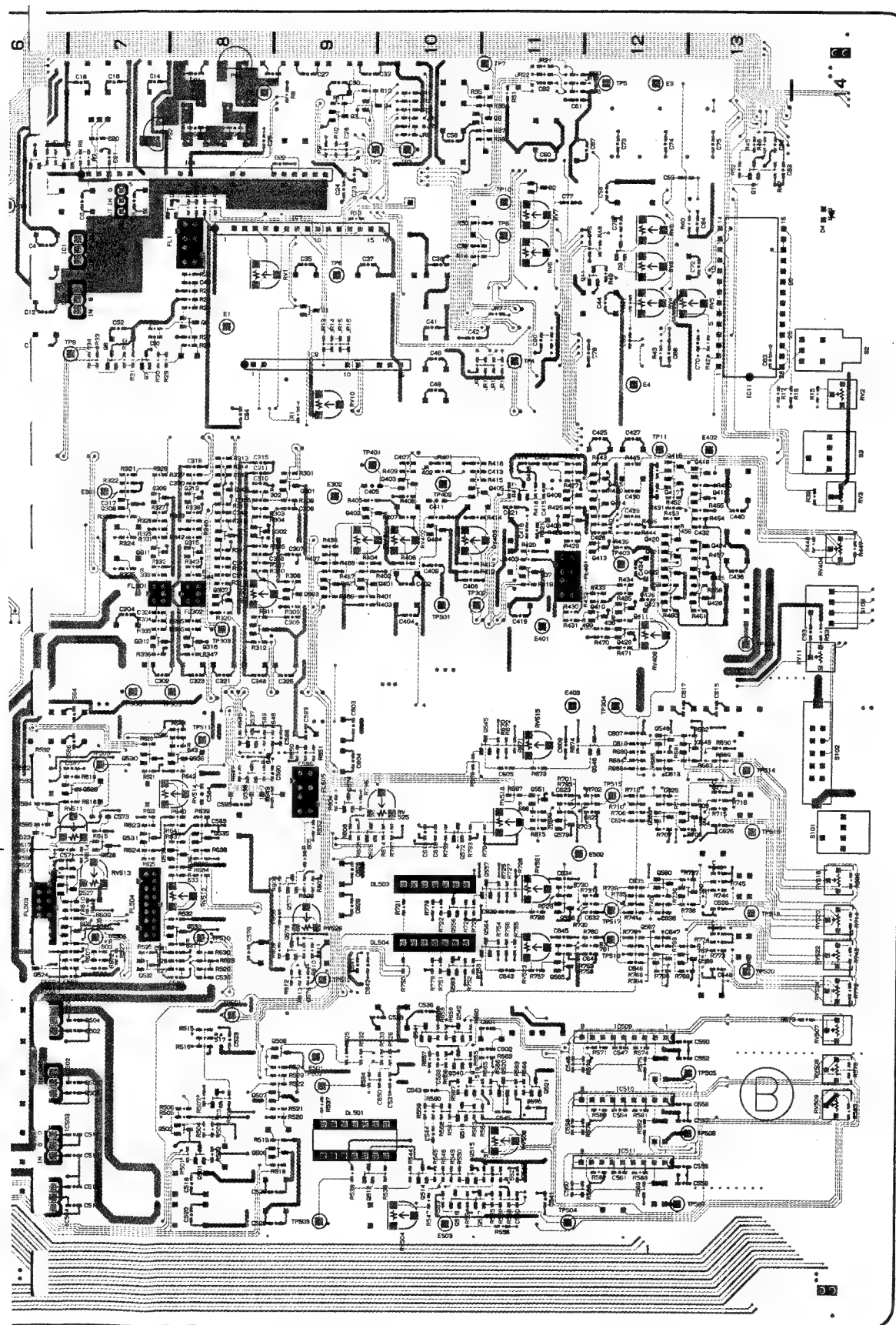
D 1  
D 2  
D 3  
D 4

E 1  
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E 3  
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DA-63 -B SIDE-

1-644-601-11  
DFS-500/500P

DA-63(1-644-601-11)

CN1	B-1	IC101	G-3	⊗JR10	*C-11	Q416	*D-12	Q567	*J-12	RV526	H-9
CN2	F-1	IC102	F-3	JR11	*C-11	Q417	*D-12	Q568	*J-13		
CN3	K-1	IC103	D-2	⊗JR12	*C-11	Q418	*D-13	Q572	*H-10	S1	A-7
CN40	H-1	IC104	D-3	JR13	*C-9	Q419	*D-13	Q573	*H-11	S2	C-14
CN50	D-1	IC105	D-5	⊗JR14	*C-9	Q420	*E-12	Q574	*G-9	S3	D-14
		IC108	E-4	JR15	*C-9	Q421	*E-12	Q577	*H-9	S101	H-14
DL501	L-9	IC109	F-4	⊗JR16	*C-9	Q422	*E-12	Q578	*J-9	S102	G-14
DL503	H-10	IC110	F-4	JR17	*A-12	Q423	*F-12			S103	F-14
DL504	J-10	IC111	J-4	⊗JR18	*A-12	Q424	*E-13	RB101	A-1		
		IC112	E-4	⊗JR20	*A-12	Q425	*E-13	RB102	A-1	TH1	C-8
D1	*C-9	IC114	B-2	JR21	*A-11	Q426	*E-13	RB103	A-1		
D2	*B-11	IC115	B-4	⊗JR22	*A-11	Q427	*E-9	RB104	G-1	TP1	B-6
D3	*B-12	IC116	B-5	JR401	*D-10	Q428	*F-12	RB105	G-1	TP2	A-9
D4	B-14	IC117	F-6	⊗JR402	*D-10	Q501	*L-8	RB106	F-1	TP3	A-10
		IC118	J-3	JR403	*E-11	Q502	*L-7	RB107	F-1	TP4	C-11
E1	C-8	IC119	J-3			Q503	*K-8	RB108	G-2	TP5	A-12
E2	A-8	IC201	K-3	PS1	A-8	Q506	*L-8	RB109	G-2	TP6	B-9
E3	A-12	IC202	L-3	PS2	A-7	Q507	*K-8	RB110	F-2	TP7	A-11
E4	D-12	IC203	H-4	PS3	C-1	Q508	*K-9	RB111	F-2	TP8	B-11
E101	H-2	IC204	H-4			Q512	*L-9	RB112	D-1	TP9	C-7
E102	B-4	IC205	H-5	Q1	*A-6	Q514	*L-10	RB113	D-1	TP10	B-11
E103	E-3	IC206	J-4	Q2	*A-6	Q515	*L-10	RB114	C-1	TP11	D-12
E201	G-5	IC207	J-5	Q3	*A-9	Q516	*L-10	RB115	C-1	TP201	G-5
E202	L-4	IC208	K-4	Q4	*A-10	Q517	*L-11	RB202	H-4	TP202	G-5
E301	D-7	IC401	D-11	Q5	*B-8	Q518	*L-10	RB203	J-4	TP203	L-4
E302	D-9	IC402	E-12	Q6	*C-8	Q519	*K-11	RB204	J-5	TP204	L-5
E401	F-11	IC501	K-7	Q7	*C-7	Q520	*K-11	RB205	K-4	TP205	L-5
E402	D-13	IC502	K-7	Q8	*C-7	Q521	*K-11			TP206	L-4
E403	F-11	IC503	L-7	Q9	*A-11	Q522	*G-6	RV1	B-8	TP301	F-10
E501	K-9	IC504	L-7	Q10	*B-13	Q523	*H-6	RV2	D-14	TP302	E-11
E502	H-12	IC505	K-8	Q11	*B-12	Q524	*J-6	RV3	E-14	TP303	F-8
E503	L-10	IC506	K-9	Q201	*K-4	Q525	*H-9	RV4	C-12	TP304	F-12
		IC507	L-10	Q202	*K-4	Q526	*J-7	RV5	C-12	TP305	F-8
FL1	B-8	IC508	L-11	Q203	*K-4	Q527	*H-7	RV6	B-11	TP306	F-7
FL301	E-7	IC509	K-13	Q204	*L-4	Q528	*H-7	RV7	B-11	TP401	D-9
FL302	E-8	IC510	K-13	Q301	*D-9	Q529	*G-7	RV8	B-12	TP403	E-12
FL401	E-12	IC511	L-13	Q302	*E-9	Q530	*G-7	RV9	B-12	TP404	F-13
FL501	L-8	IC512	J-7	Q303	*E-9	Q531	*H-7	RV10	D-9	TP501	J-8
FL502	K-9	IC513	J-8	Q304	*F-9	Q532	*J-7	RV11	F-14	TP502	K-8
FL503	J-7	IC514	G-9	Q305	*D-8	Q533	*J-8	RV301	E-8	TP503	L-8
FL504	H-7	IC516	G-12	Q306	*E-8	Q534	*H-7	⊗RV401	E-9	TP504	L-12
FL505	G-9	IC517	G-13	Q307	*E-8	Q535	*H-8	RV402	E-10	TP505	K-13
		IC518	H-13	Q308	*E-7	Q536	*G-8	⊗RV403	E-10	TP506	L-13
		IC519	H-13	Q309	*D-7	Q537	*G-8	RV404	E-14	TP507	L-13
IC1	B-8	IC520	H-11	Q311	*E-7	Q538	*G-8	RV406	F-12	TP508	J-7
IC2	B-7	IC521	H-12	Q312	*F-7	Q540	*K-10	RV504	L-10	TP509	G-7
IC3	C-8	IC522	H-13	Q313	*D-8	Q541	*K-10	RV506	L-11	TP510	J-8
IC4	B-8	IC523	J-11	Q315	*E-8	Q542	*K-10	RV507	K-14	TP511	G-8
IC5	A-9	IC524	J-13	Q316	*F-8	Q545	*G-11	RV508	K-14	TP512	J-9
IC6	A-9	IC525	K-11	⊗Q401	*E-10	Q546	*G-12	RV509	K-14	TP514	G-13
IC7	B-9	IC526	J-9	Q402	*E-9	Q548	*G-12	RV511	H-7	TP515	G-12
IC8	C-10	IC601	K-2	Q403	*D-10	Q549	*G-13	RV512	H-8	TP516	H-13
IC9	C-9	IC602	J-2	⊗Q404	*E-10	Q551	*G-11	⊗RV513	H-7	TP517	H-12
IC10	A-11	IC603	H-1	⊗Q405	*D-11	Q553	*H-12	RV514	H-8	TP518	J-13
IC11	C-13			Q406	*D-11	Q554	*H-13	RV515	G-11	TP519	J-12
IC12	B-13	JR1	*A-11	⊗Q407	*E-11	Q556	*J-10	RV516	H-14	TP520	J-13
IC13	C-12	⊗JR2	*A-10	Q408	*D-11	Q557	*H-11	RV518	H-11		
IC14	A-12	JR3	*J-10	Q409	*E-11	Q558	*J-11	RV520	J-14	VC01	B-10
IC15	A-12	⊗JR4	*J-10	Q410	*F-12	Q560	*H-12	RV521	H-11	VC02	A-10
IC16	A-13	JR5	*J-10	Q411	*F-12	Q561	*H-13	RV522	J-14		
IC17	B-11	⊗JR6	*J-10	Q413	*E-12	Q563	*J-10	RV523	J-11		
IC18	C-11	JR7	*C-11	Q414	*E-12	Q564	*J-11	RV524	J-14		
IC19	A-13	JR9	*C-11	Q415	*D-12	Q565	*J-11	RV525	H-10		
IC20	C-8										

\*:SOLDERING SIDE

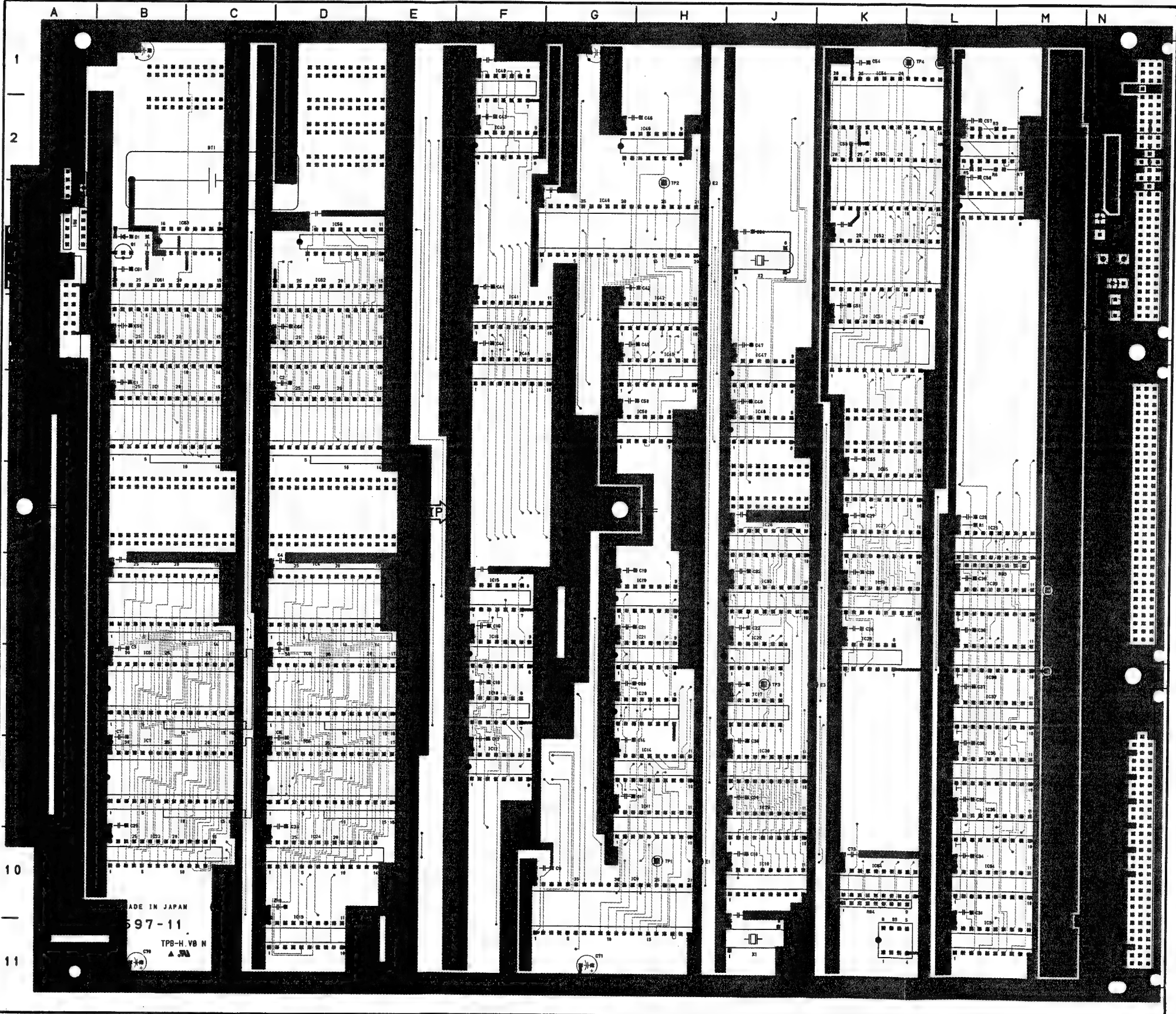
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SY-172;System Control

SY-172(1-644-597-11)

BT1	C-2	IC36	M-9
		IC37	M-8
CNI1	B-5	IC38	M-8
CNI2	D-5	IC39	M-7
CNI3	B-7	IC40	G-3
CNI4	D-7	IC41	F-4
CNI5	B-8	IC42	H-4
CNI6	D-8	IC43	F-2
CNI7	B-9	IC44	F-4
CNI8	D-9	IC45	H-4
		IC46	H-2
CNI6	N-3	IC47	J-4
CNI8	N-10	IC48	J-5
		IC49	F-1
D1	B-3	IC50	H-5
		IC51	K-4
E1	H-10	IC52	K-3
E2	H-3	IC53	K-2
E3	K-8	IC54	K-1
E4	L-1	IC55	K-6
E5	M-8	IC56	D-3
		IC57	M-2
IC1	B-5	IC58	M-3
IC2	D-5	IC59	B-4
IC3	B-7	IC60	D-4
IC4	D-7	IC61	B-3
IC5	B-8	IC62	D-3
IC6	D-8	IC63	C-3
IC7	B-9	IC64	K-10
IC8	D-9		
IC9	H-10	PS1	N-4
IC10	J-10	Q1	B-3
IC11	H-9		
IC12	F-9		
IC13	D-10	RB1	A-3
IC14	H-9	RB2	A-3
IC15	F-7	RB3	M-7
IC16	F-7	RB4	K-10
IC17	J-8		
IC18	F-8	S1	A-4
IC19	H-7	S2	A-3
IC20	H-8	S3	L-10
IC21	H-7		
IC22	J-7	TP1	H-10
IC23	B-10	TP2	H-3
IC24	D-10	TP3	J-8
IC25	M-6	TP4	L-1
IC26	J-6	TP5	M-7
IC27	K-6	X1	J-11
IC28	K-7	X2	J-3
IC29	J-9		
IC30	J-9		
IC31	M-11		
IC32	J-7		
IC33	K-7		
IC34	M-10		
IC35	M-9		



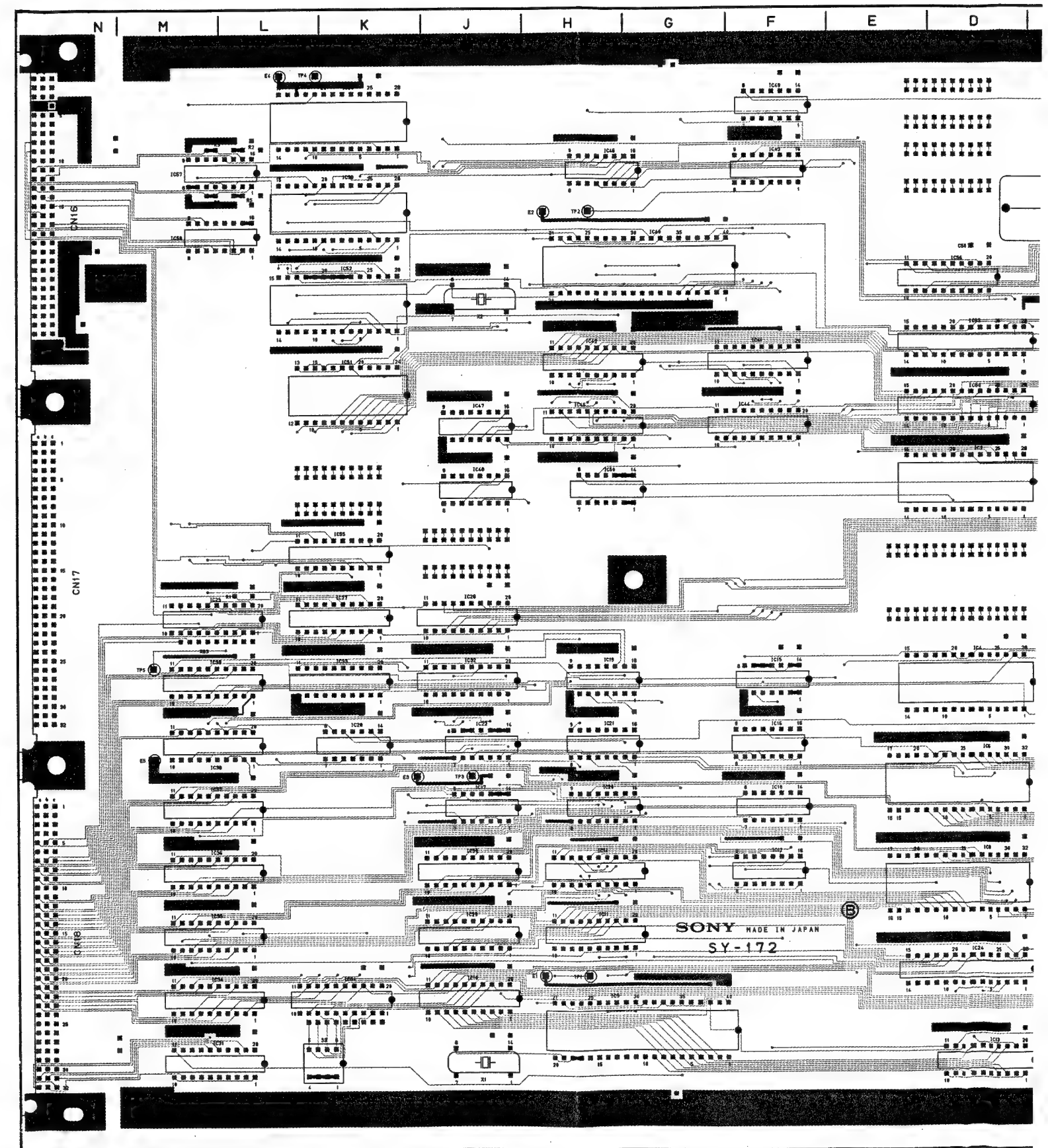




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DFS-500/500P

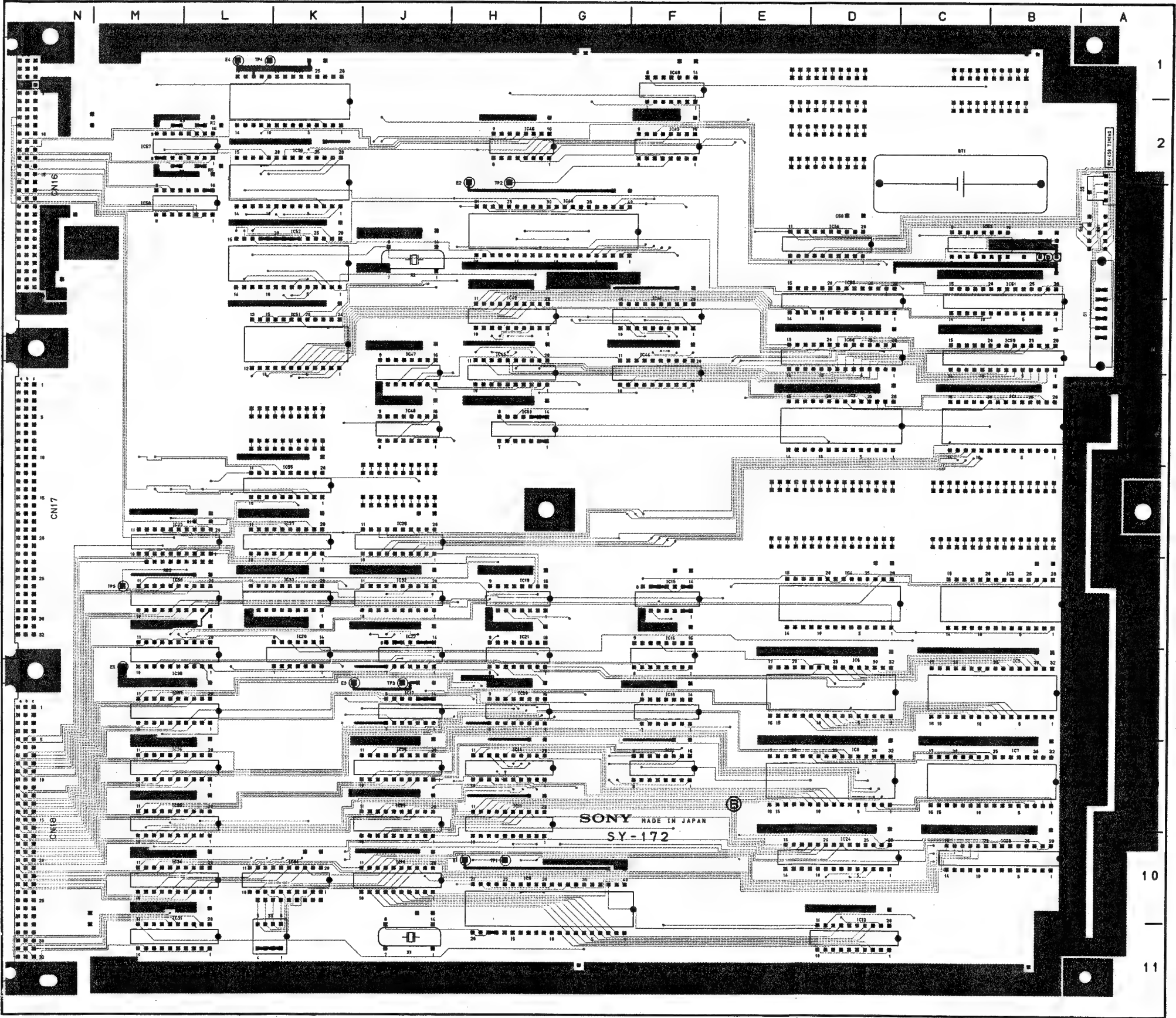


SY-172;System Control





SY-172;System Control



SY-172(1-644-597-11)

BT1	C-2	IC36	M-9
		IC37	M-8
CN11	B-5	IC38	M-8
CN12	D-5	IC39	M-7
CN13	B-7	IC40	G-3
CN14	D-7	IC41	F-4
CN15	B-8	IC42	H-4
CN16	D-8	IC43	F-2
CN17	B-9	IC44	F-4
CN18	D-9	IC45	H-4
		IC46	H-2
CN16	N-3	IC47	J-4
CN18	N-10	IC48	J-5
		IC49	F-1
D1	B-3	IC50	H-5
		IC51	K-4
E1	H-10	IC52	K-3
E2	H-3	IC53	K-2
E3	K-8	IC54	K-1
E4	L-1	IC55	K-6
E5	M-8	IC56	D-3
		IC57	M-2
IC1	B-5	IC58	M-3
IC2	D-5	IC59	B-4
IC3	B-7	IC60	D-4
IC4	D-7	IC61	B-3
IC5	B-8	IC62	D-3
IC6	D-8	IC63	C-3
IC7	B-9	IC64	K-10
IC8	D-9		
IC9	H-10	PS1	N-4
IC10	J-10		
IC11	H-9	Q1	B-3
IC12	F-9		
IC13	D-10	RB1	A-3
IC14	H-9	RB2	A-3
IC15	F-7	RB3	M-7
IC16	F-7	RB4	K-10
IC17	J-8		
IC18	F-8	S1	A-4
IC19	H-7	S2	A-3
IC20	H-8	S3	L-10
IC21	H-7		
IC22	J-7	TP1	H-10
IC23	B-10	TP2	H-3
IC24	D-10	TP3	J-8
IC25	M-6	TP4	L-1
IC26	J-6	TP5	M-7
IC27	K-6	X1	J-11
IC28	K-7	X2	J-3
IC29	J-9		
IC30	J-9		
IC31	M-11		
IC32	J-7		
IC33	K-7		
IC34	M-10		
IC35	M-9		

SY-172 -B SIDE-  
1-644-597-11  
DFS-500/500P



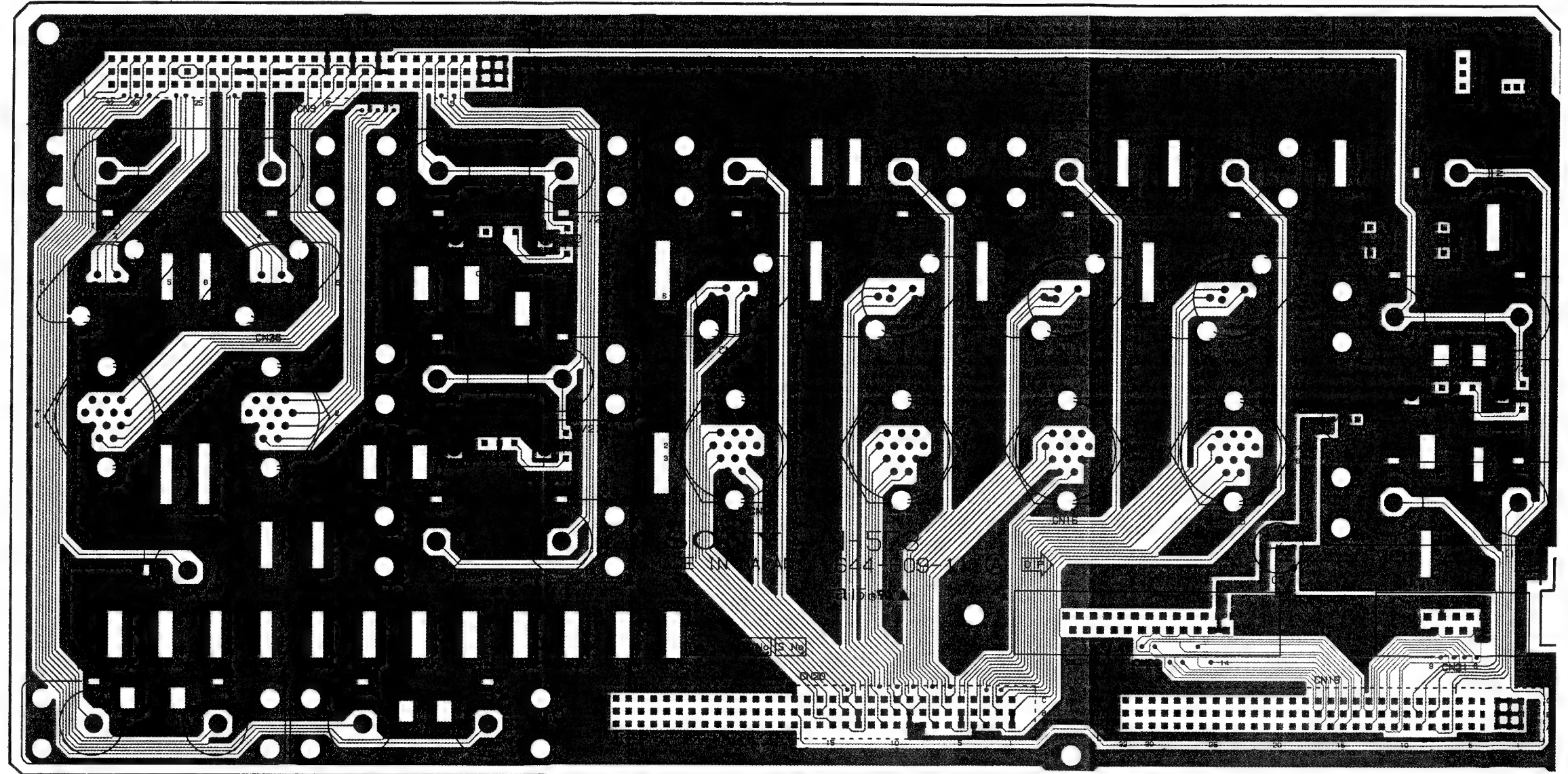
## CN-573;Rear Panel Connector

CN-573(1-644-609-11)

CN1	E-3
CN3	*A-1
CN4	E-2
CN6	E-1
CN7	D-2
CN9	C-2
CN11	D-2
CN12	D-2
CN13	C-2
CN14	C-2
CN15	D-3
CN16	D-3
CN17	C-3
CN18	C-3
CN19	*D-5
CN20	*C-5
CN21	C-4
CN22	D-4
CN23	B-4
CN25	B-3
CN27	B-2
CN29	B-5
CN31	A-5
CN33	A-4
CN34	A-2
CN36	A-2
CN37	A-2
CN38	A-3
CN39	A-3
CN40	*E-1

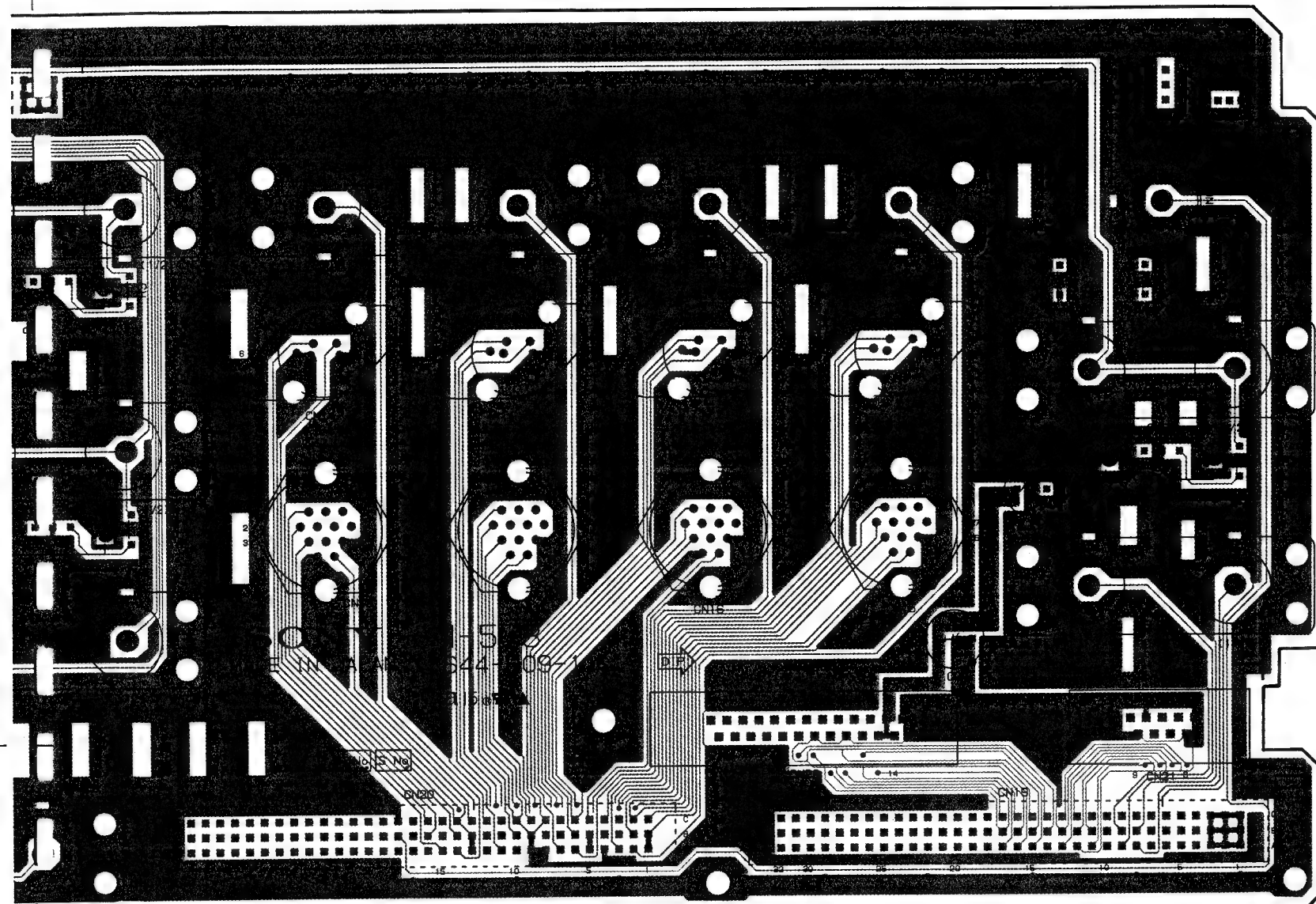
S1	E-3
S2	B-3
S3	B-2

\*:SOLDERING SIDE



**CN-573 -A SII**  
 1-644-609-11  
 DFS-500/500P

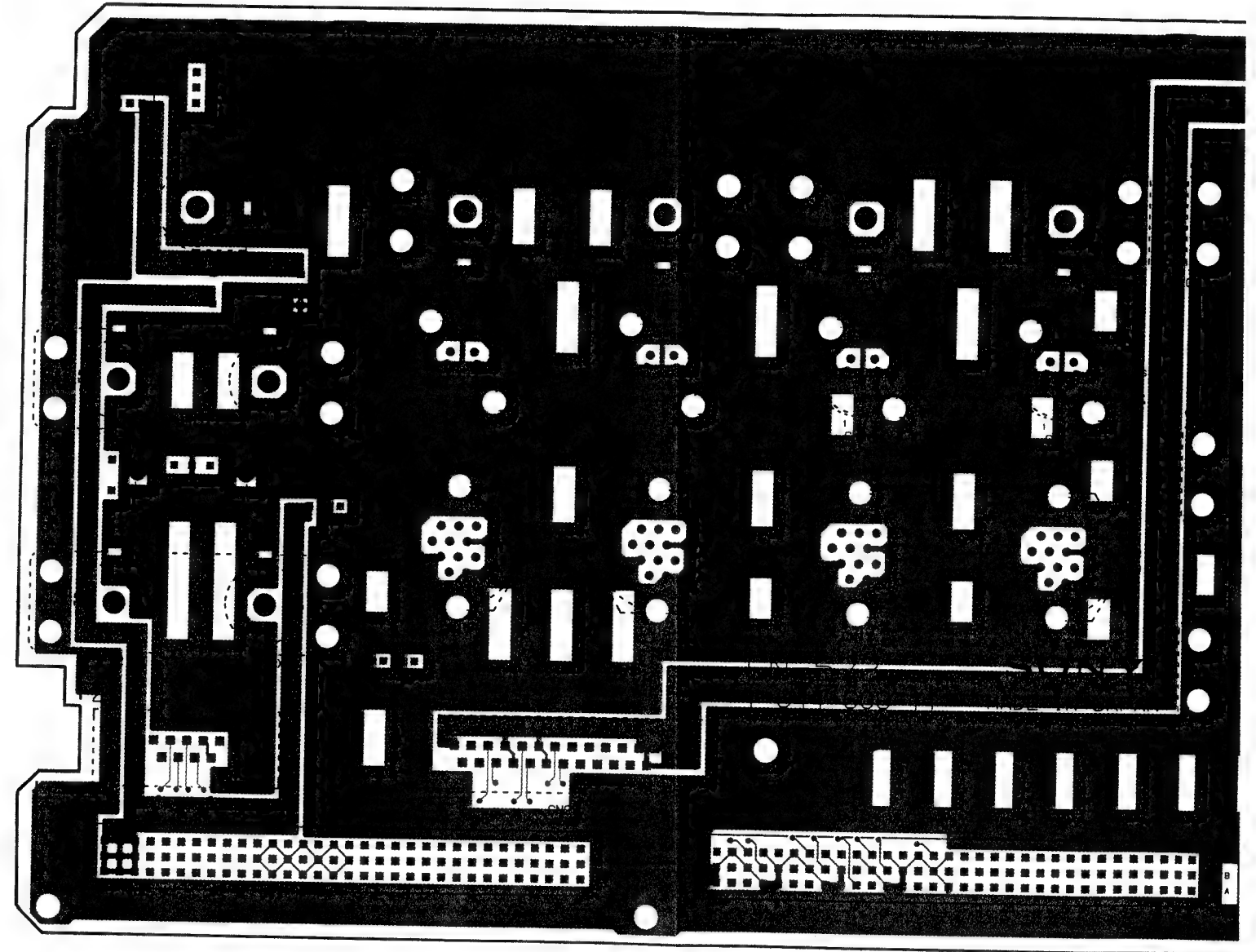




CN-573 -A SIDE-  
1-644-609-11  
DFS-500/500P

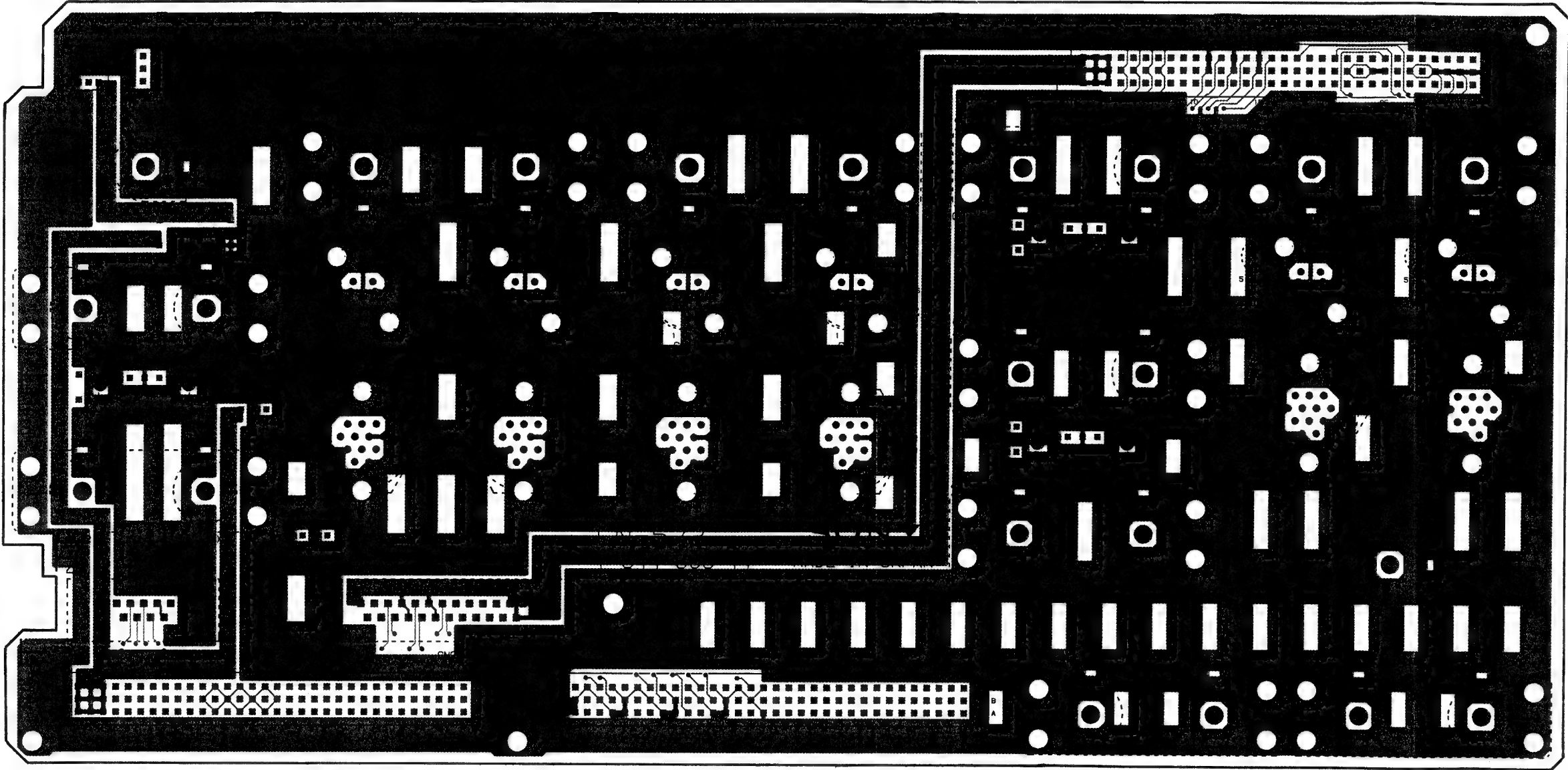


CN-573;Rear Panel Connector





CN-573;Rear Panel Connector



CN-573(1-644-609-11)

- CN1 E-3
- CN3 \*A-1
- CN4 E-2
- CN6 E-1
- CN7 D-2
- CN9 C-2
- CN11 D-2
- CN12 D-2
- CN13 C-2
- CN14 C-2
- CN15 D-3
- CN16 D-3
- CN17 C-3
- CN18 C-3
- CN19 \*D-5
- CN20 \*C-5
- CN21 C-4
- CN22 D-4
- CN23 B-4
- CN25 B-3
- CN27 B-2
- CN29 B-5
- CN31 A-5
- CN33 A-4
- CN34 A-2
- CN36 A-2
- CN37 A-2
- CN38 A-3
- CN39 A-3
- CN40 \*E-1

- S1 E-3
- S2 B-3
- S3 B-2

\*:SOLDERING SIDE

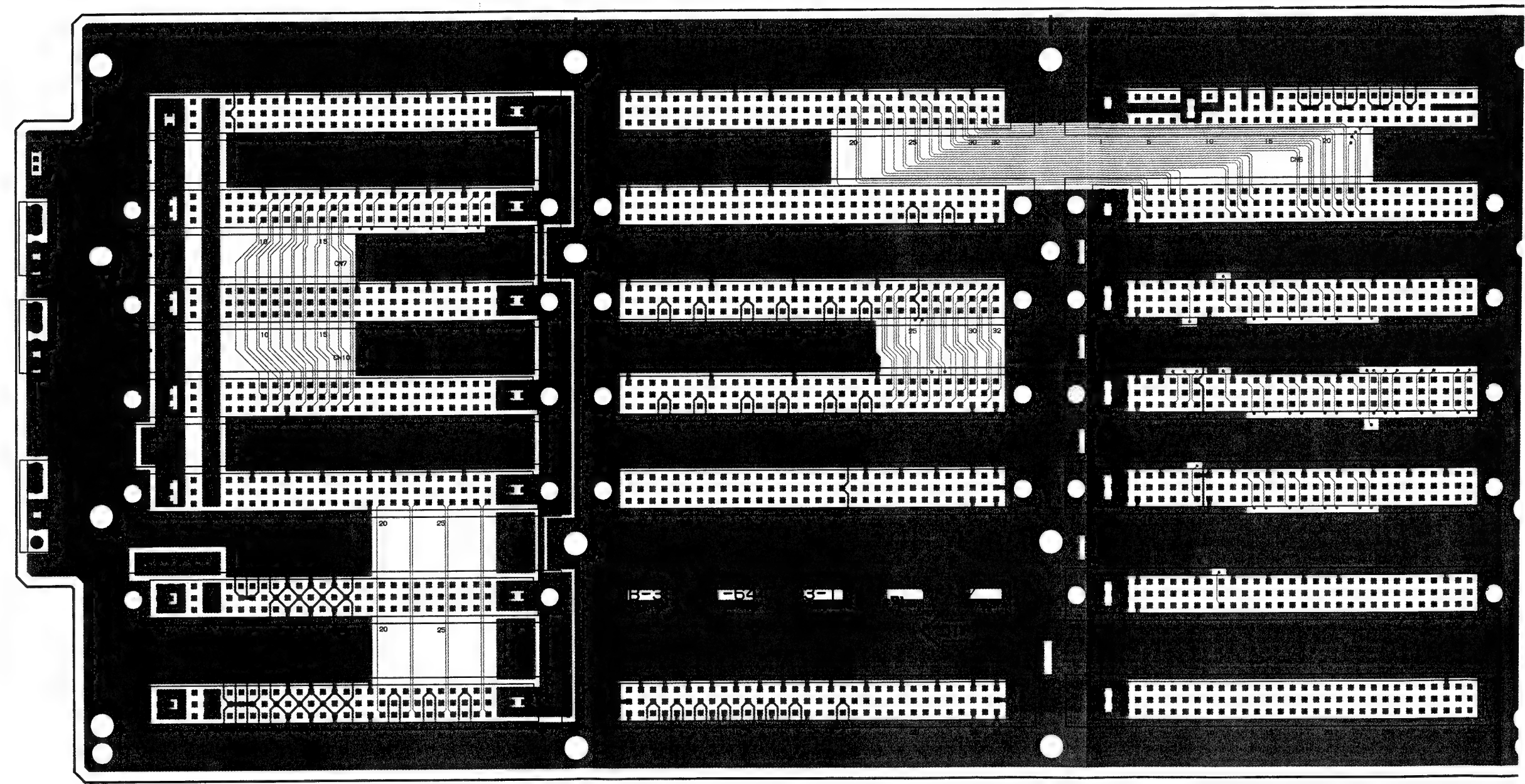
CN-573 -B SIDE-  
1-644-609-11  
DFS-500/500P



MB-385;Mother Board

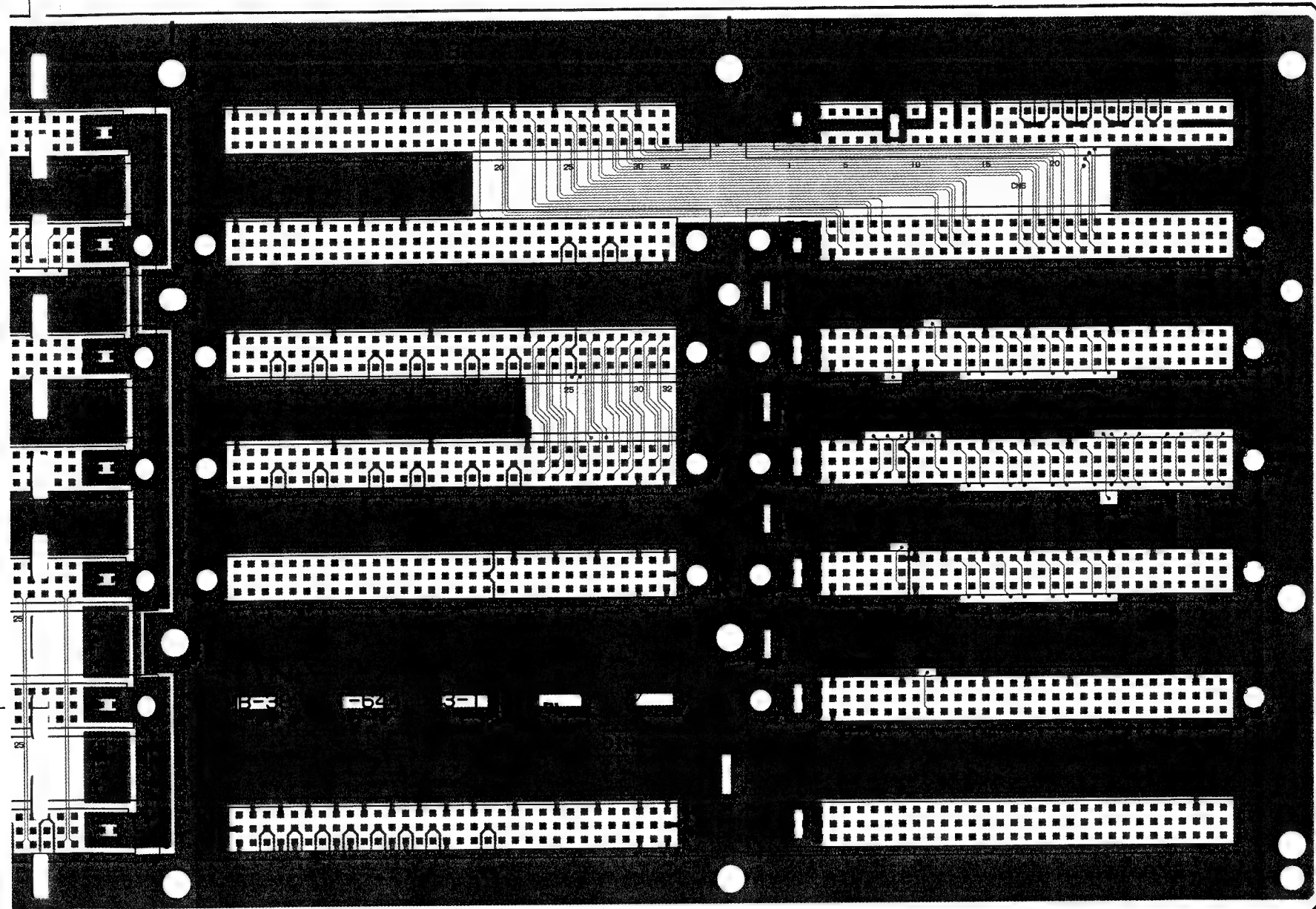
MB-385(1-644-603-11)

- CN1 A-1
- CN2 B-1
- CN3 C-1
- CN4 A-2
- CN5 B-2
- CN6 C-2
- CN7 A-3
- CN8 B-3
- CN9 C-3
- CN10 A-4
- CN11 B-4
- CN12 C-4
- CN13 A-5
- CN14 B-5
- CN15 C-5
- CN16 A-6
- CN18 C-6
- CN19 A-7
- CN20 B-7
- CN21 C-7
- CN22 A-1
- CN23 A-2
- CN24 A-3
- CN25 A-5



MB-385 -A SI  
1-644-603-11  
DFS-500/500P

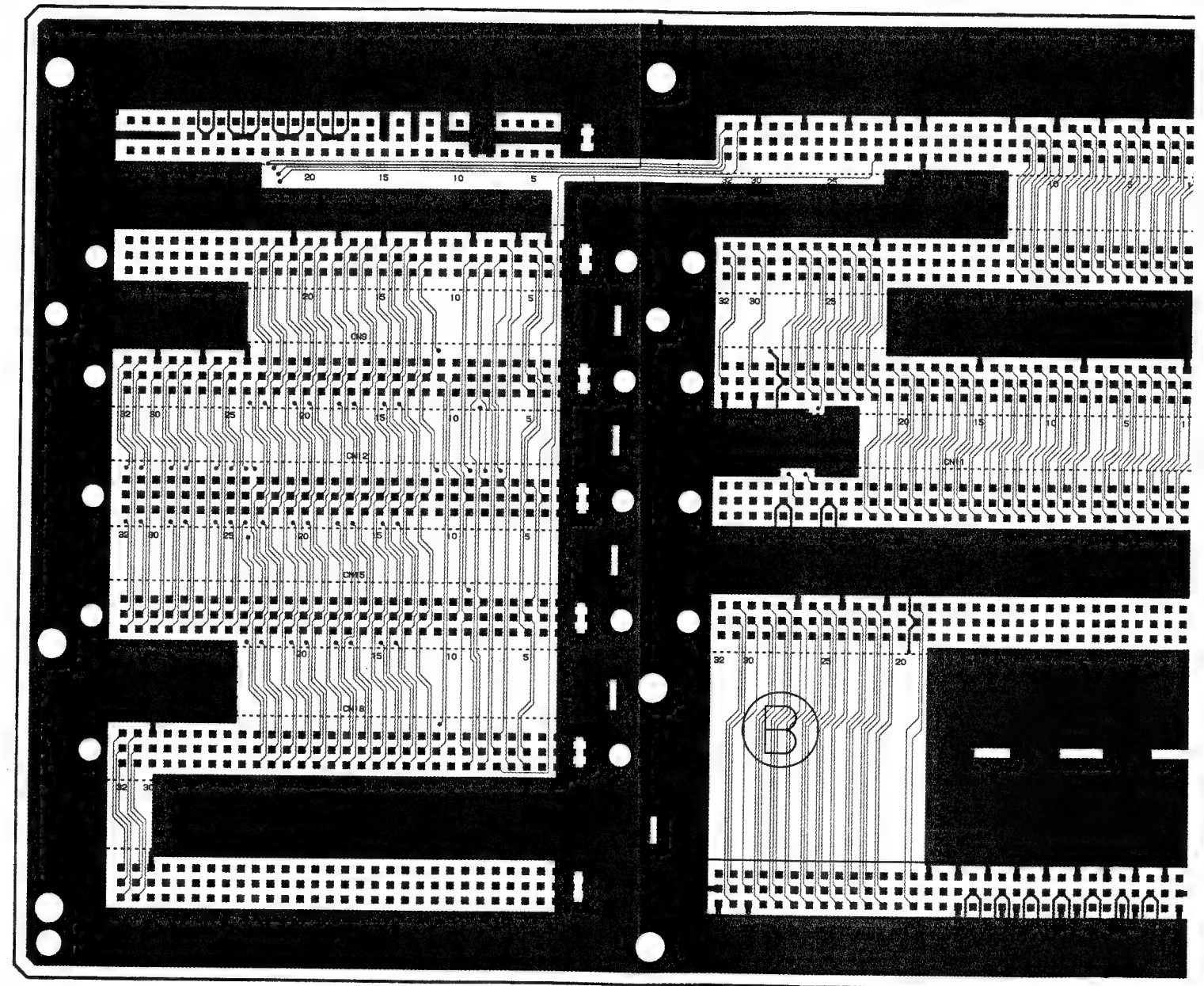




**MB-385 -A SIDE-**  
1-644-603-11  
DFS-500/500P

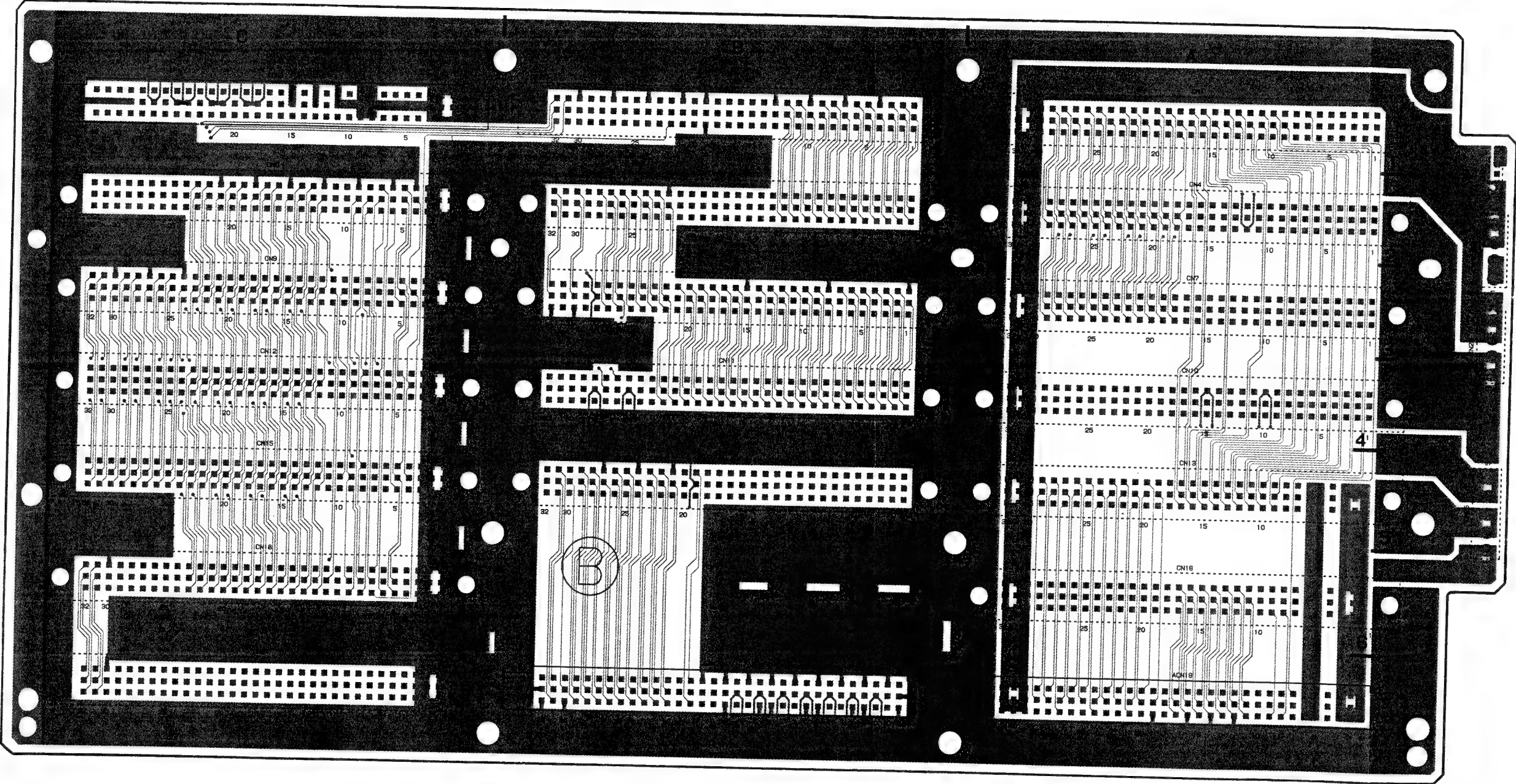


**MB-385;Mother Board**





MB-385;Mother Board



MB-385(1-644-603-11)

- CN1 A-1
- CN2 B-1
- CN3 C-1
- CN4 A-2
- CN5 B-2
- CN6 C-2
- CN7 A-3
- CN8 B-3
- CN9 C-3
- CN10 A-4
- CN11 B-4
- CN12 C-4
- CN13 A-5
- CN14 B-5
- CN15 C-5
- CN16 A-6
- CN18 C-6
- CN19 A-7
- CN20 B-7
- CN21 C-7
- CN22 A-1
- CN23 A-2
- CN24 A-3
- CN25 A-5

MB-385 -B SIDE-  
1-644-603-11  
DFS-500/500P

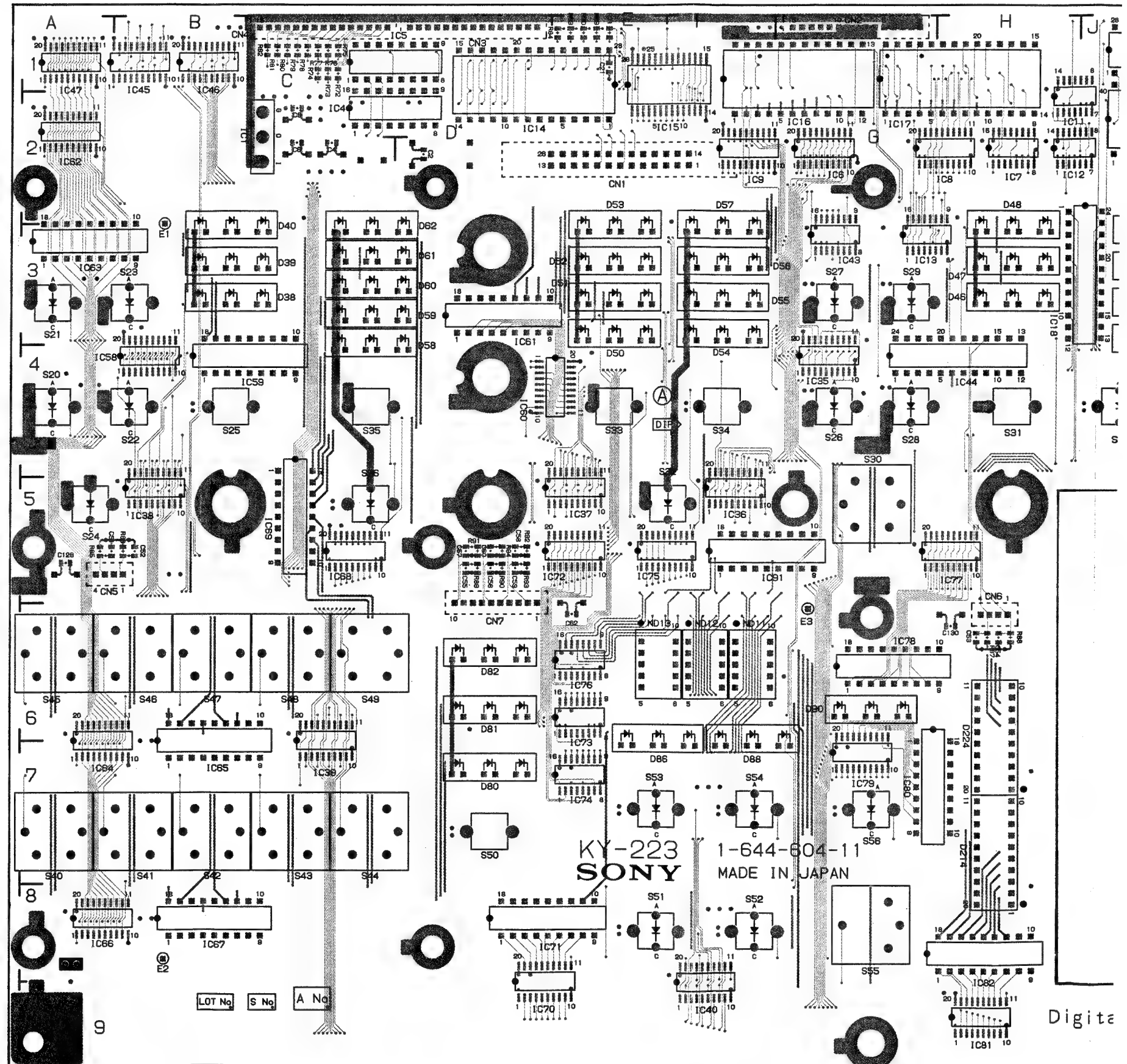


## KY-223;Function Key

KY-223(1-644-604-11)

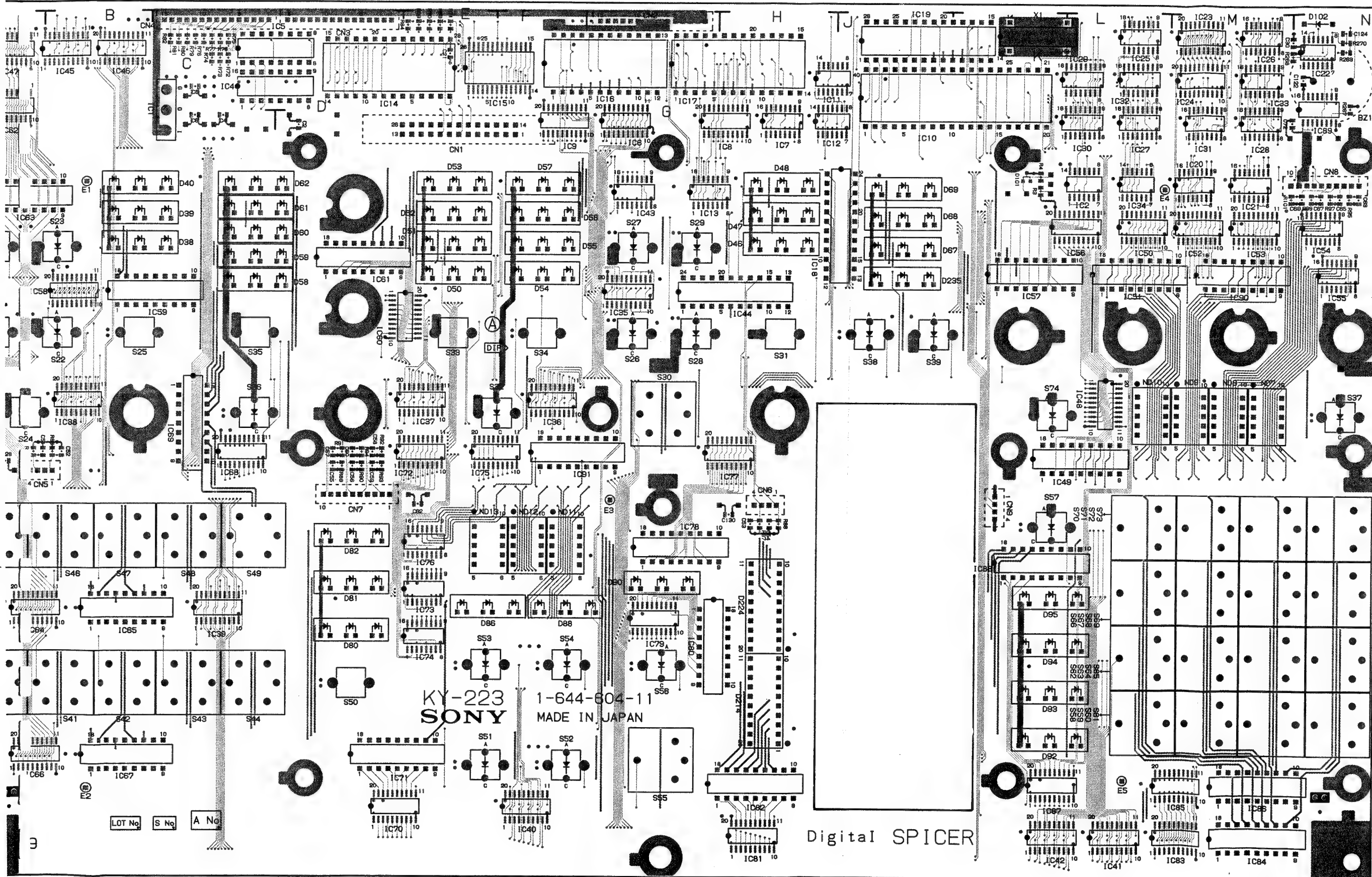
BZ1	*M-2	IC6	G-2	IC69	C-5	S49	C-6
		IC7	H-2	IC70	E-8	S50	D-7
CN114	*D-2	IC8	H-2	IC71	E-8	S51	E-8
		IC9	F-2	IC72	E-5	S52	F-8
CN1	*E-2	IC10	J-2	IC73	E-7	S53	E-7
CN2	*H-1	IC11	H-2	IC74	E-7	S54	F-7
CN3	*E-1	IC12	H-2	IC75	E-5	S55	G-8
CN4	*C-1	IC13	G-3	IC76	E-6	S56	G-7
CN5	*A-5	IC14	*D-2	IC77	H-5	S57	K-5
CN6	*H-6	IC15	F-2	IC78	G-6	S58	L-7
CN7	*D-5	IC16	G-2	IC79	G-7	S59	L-7
CN8	*N-3	IC17	G-2	IC80	G-7	S60	L-7
CN9	*K-6	IC18	H-3	IC81	H-9	S61	L-7
		IC19	J-1	IC82	H-8	S62	L-7
D38	C-3	IC20	M-2	IC83	M-9	S63	L-7
D39	C-3	IC21	M-3	IC84	M-9	S64	L-7
D40	C-3	IC22	N-1	IC85	M-8	S65	L-7
D46	H-3	IC23	M-1	IC86	M-8	S66	L-7
D47	H-3	IC24	M-2	IC87	K-8	S67	L-7
D48	H-2	IC25	L-1	IC88	K-6	S68	L-7
D50	E-4	IC26	M-1	IC89	N-2	S69	L-7
D51	E-3	IC27	L-2	IC90	M-4	S70	L-6
D52	E-3	IC28	M-2	IC91	G-5	S71	L-6
D53	E-2	IC29	L-1			S72	L-6
D54	F-4	IC30	L-2	ND7	M-4	S73	L-6
D55	G-3	IC31	M-2	ND8	M-4	S74	K-4
D56	G-3	IC32	L-2	ND9	M-4		
D57	F-2	IC33	M-2	ND10	L-4	X1	K-1
D58	D-3	IC34	L-3	ND11	F-6		
D59	D-3	IC35	G-4	ND12	F-6		
D60	D-3	IC36	F-5	ND13	E-6		
D61	D-3	IC37	E-5				
D62	D-3	IC38	B-5	PS1	*D-2		
D67	J-3	IC39	C-7				
D68	J-3	IC40	F-9	S20	A-4		
D69	J-3	IC41	L-9	S21	A-3		
D80	D-7	IC42	K-9	S22	B-4		
D81	D-6	IC43	G-3	S23	B-3		
D82	D-6	IC44	H-4	S24	A-5		
D86	E-7	IC45	B-1	S25	B-4		
D88	F-7	IC46	B-1	S26	G-4		
D90	G-6	IC47	A-1	S27	G-3		
D92	K-8	IC48	L-5	S28	G-4		
D93	K-7	IC49	K-5	S29	G-3		
D94	K-7	IC50	L-3	S30	G-4		
D95	K-7	IC51	L-4	S31	H-4		
D101	K-2	IC52	M-3	S32	F-4		
D102	N-1	IC53	M-3	S33	E-4		
D214	H-7	IC54	N-3	S34	F-4		
D224	H-6	IC55	N-4	S35	C-4		
D235	J-3	IC56	L-3	S36	C-5		
E1	B-3	IC57	K-4	S37	N-5		
E2	B-8	IC58	A-4	S38	J-4		
E3	G-6	IC59	C-4	S39	J-4		
E4	L-3	IC60	D-4	S40	A-7		
E5	L-8	IC61	D-3	S41	B-7		
		IC62	A-2	S42	B-7		
IC1	B-2	IC63	A-3	S43	C-7		
IC2	L-3	IC64	A-7	S44	C-7		
IC3	*K-3	IC65	B-7	S45	A-6		
IC4	C-2	IC66	A-8	S46	B-6		
IC5	D-1	IC67	B-8	S47	B-6		
		IC68	C-5	S48	C-6		

\*:SOLDERING SIDE



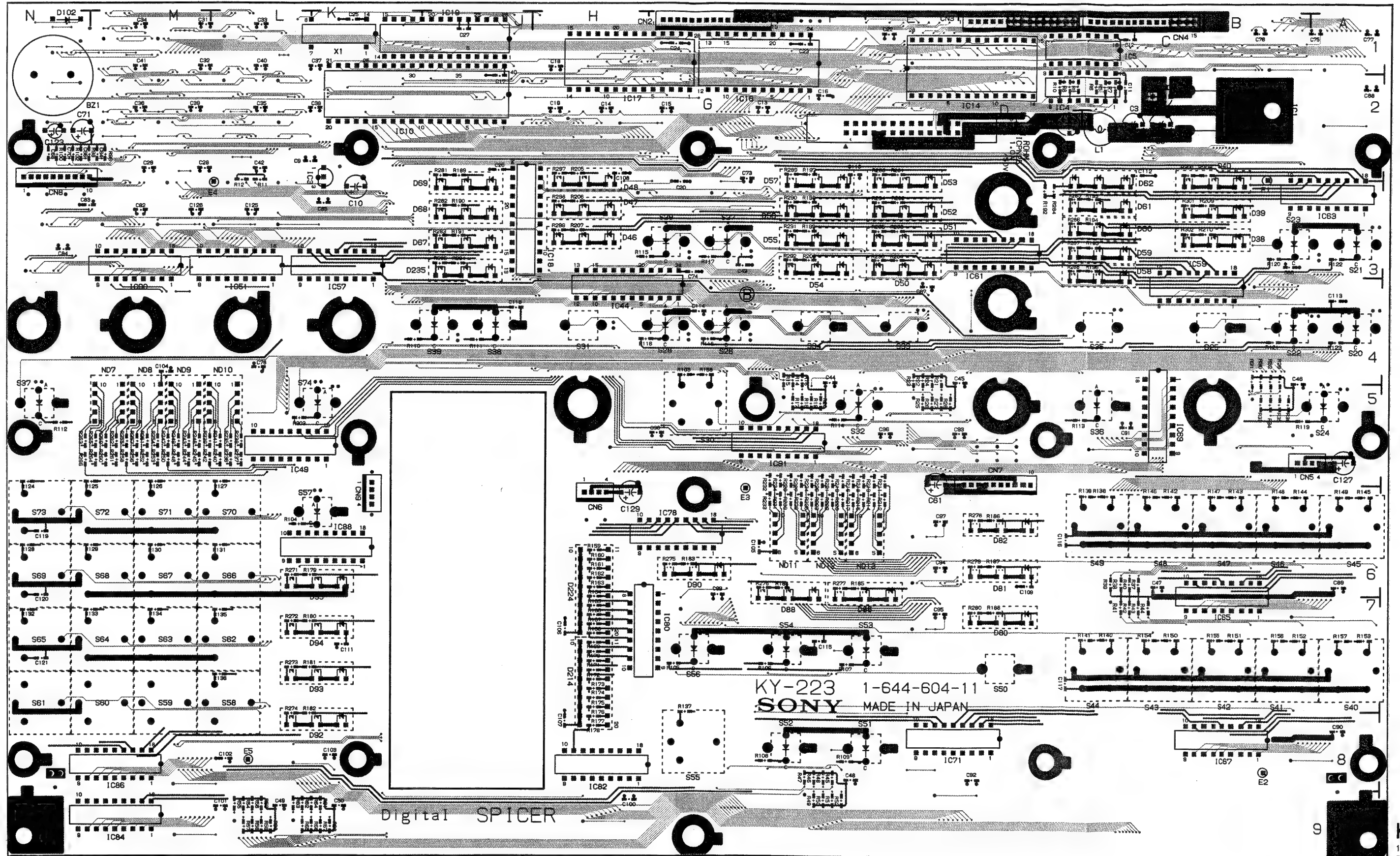


2 ;Function Key

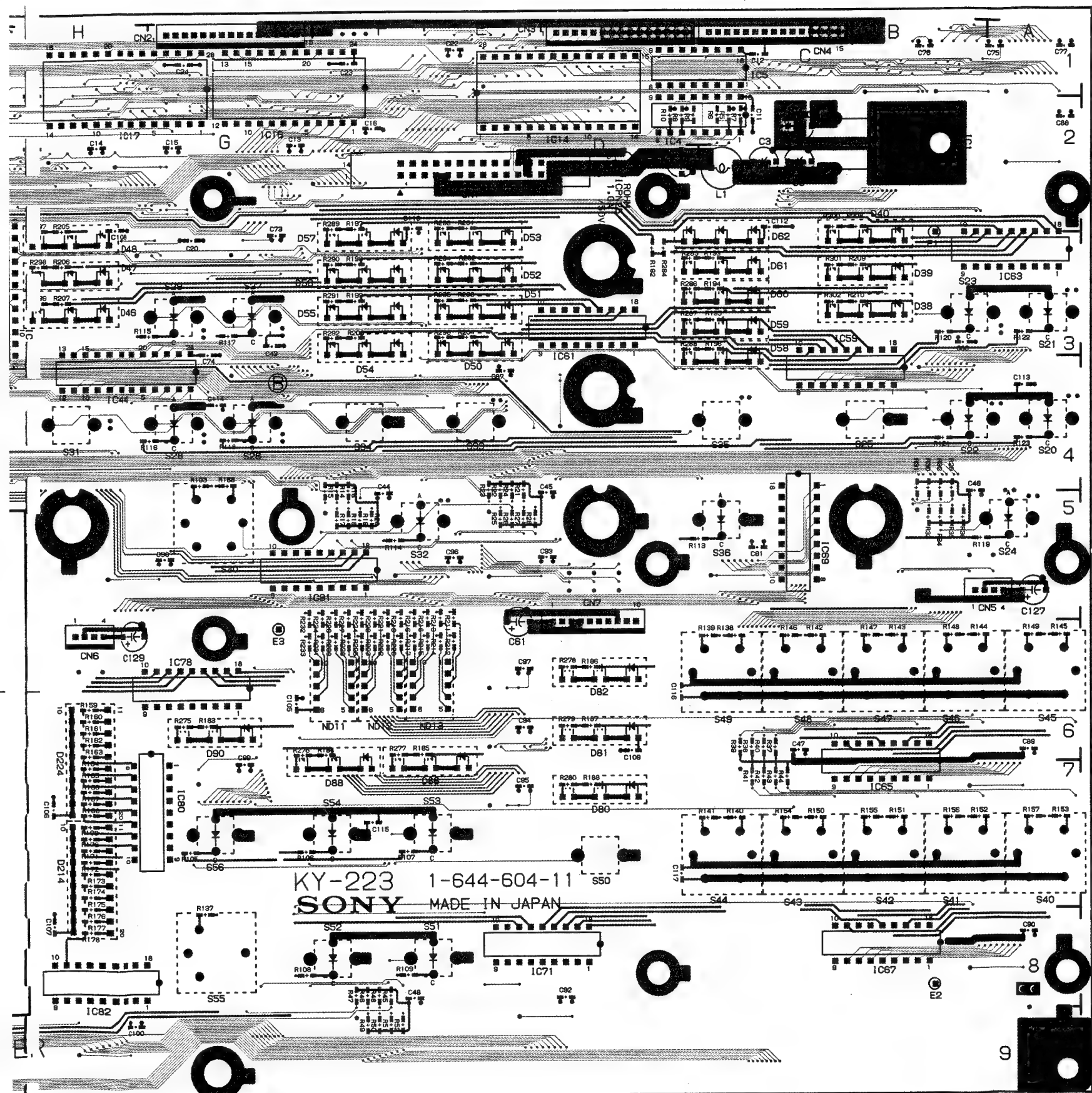




KY-223;Function Key







KY-223(1-644-604-11)

BZ1	*M-2	IC6	G-2	IC69	C-5	S49	C-6
CN114	*D-2	IC7	H-2	IC70	E-8	S50	D-7
		IC8	H-2	IC71	E-8	S51	E-8
		IC9	F-2	IC72	E-5	S52	F-8
CN1	*E-2	IC10	J-2	IC73	E-7	S53	E-7
CN2	*H-1	IC11	H-2	IC74	E-7	S54	F-7
CN3	*E-1	IC12	H-2	IC75	E-5	S55	G-8
CN4	*C-1	IC13	G-3	IC76	E-6	S56	G-7
CN5	*A-5	IC14	*D-2	IC77	H-5	S57	K-5
CN6	*H-6	IC15	F-2	IC78	G-6	S58	L-7
CN7	*D-5	IC16	G-2	IC79	G-7	S59	L-7
CN8	*N-3	IC17	G-2	IC80	G-7	S60	L-7
CN9	*K-6	IC18	H-3	IC81	H-9	S61	L-7
		IC19	J-1	IC82	H-8	S62	L-7
D38	C-3	IC20	M-2	IC83	M-9	S63	L-7
D39	C-3	IC21	M-3	IC84	M-9	S64	L-7
D40	C-3	IC22	N-1	IC85	M-8	S65	L-7
D46	H-3	IC23	M-1	IC86	M-8	S66	L-7
D47	H-3	IC24	M-2	IC87	K-8	S67	L-7
D48	H-2	IC25	L-1	IC88	K-6	S68	L-7
D50	E-4	IC26	M-1	IC89	N-2	S69	L-7
D51	E-3	IC27	L-2	IC90	M-4	S70	L-6
D52	E-3	IC28	M-2	IC91	G-5	S71	L-6
D53	E-2	IC29	L-1			S72	L-6
D54	F-4	IC30	L-2	ND7	M-4	S73	L-6
D55	G-3	IC31	M-2	ND8	M-4	S74	K-4
D56	G-3	IC32	L-2	ND9	M-4		
D57	F-2	IC33	M-2	ND10	L-4	X1	K-1
D58	D-3	IC34	L-3	ND11	F-6		
D59	D-3	IC35	G-4	ND12	F-6		
D60	D-3	IC36	F-5	ND13	E-6		
D61	D-3	IC37	E-5				
D62	D-3	IC38	B-5	PS1	*D-2		
D67	J-3	IC39	C-7				
D68	J-3	IC40	F-9	S20	A-4		
D69	J-3	IC41	L-9	S21	A-3		
D80	D-7	IC42	K-9	S22	B-4		
D81	D-6	IC43	G-3	S23	B-3		
D82	D-6	IC44	H-4	S24	A-5		
D86	E-7	IC45	B-1	S25	B-4		
D88	F-7	IC46	B-1	S26	G-4		
D90	G-6	IC47	A-1	S27	G-3		
D92	K-8	IC48	L-5	S28	G-4		
D93	K-7	IC49	K-5	S29	G-3		
D94	K-7	IC50	L-3	S30	G-4		
D95	K-7	IC51	L-4	S31	H-4		
D101	K-2	IC52	M-3	S32	F-4		
D102	N-1	IC53	M-3	S33	E-4		
D214	H-7	IC54	N-3	S34	F-4		
D224	H-6	IC55	N-4	S35	C-4		
D235	J-3	IC56	L-3	S36	C-5		
E1	B-3	IC57	K-4	S37	N-5		
E2	B-8	IC58	A-4	S38	J-4		
E3	G-8	IC59	C-4	S39	J-4		
E4	L-3	IC60	D-4	S40	A-7		
E5	L-8	IC61	D-3	S41	B-7		
		IC62	A-2	S42	B-7		
IC1	B-2	IC63	A-3	S43	C-7		
IC2	L-3	IC64	A-7	S44	C-7		
IC3	*K-3	IC65	B-7	S45	A-6		
IC4	C-2	IC66	A-8	S46	B-6		
IC5	D-1	IC67	B-8	S47	B-6		
		IC68	C-5	S48	C-6		

KY-223 -B SIDE-  
1-644-604-11  
DFS-500/500P



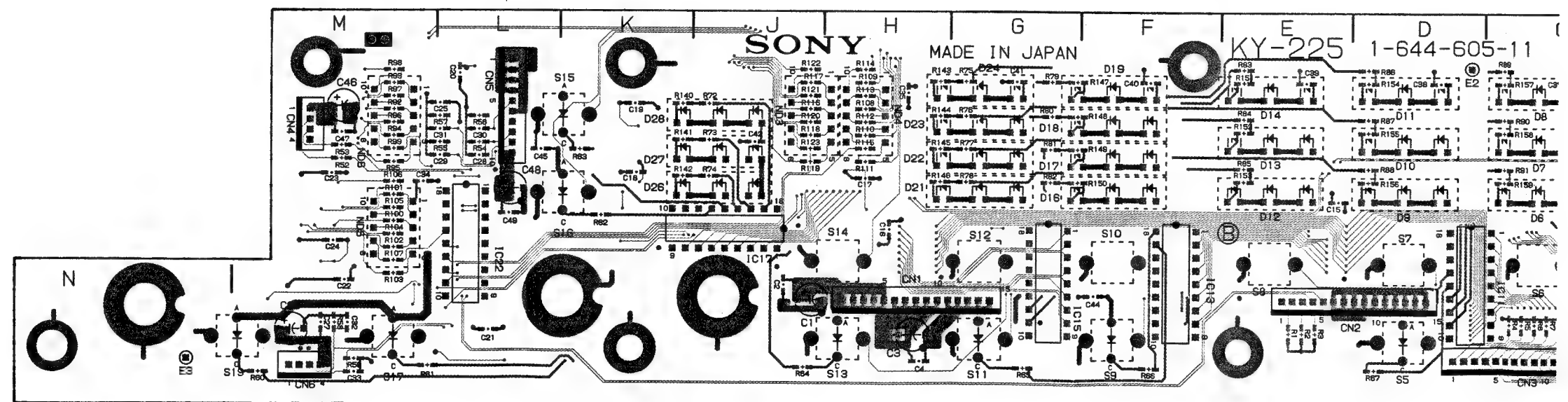
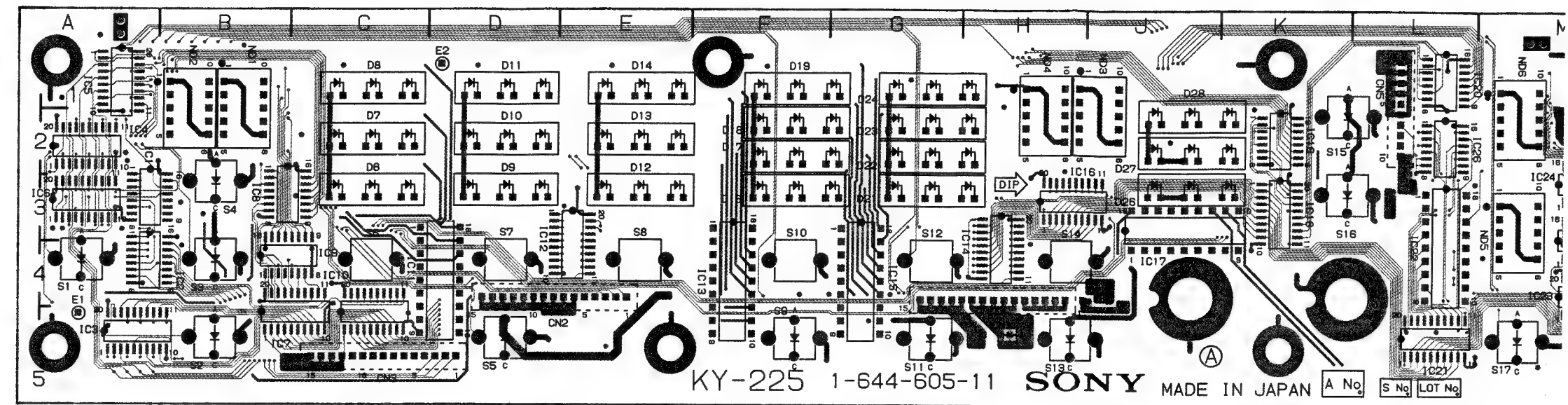
## KY-225; Switch

KY-225(1-644-605-11)

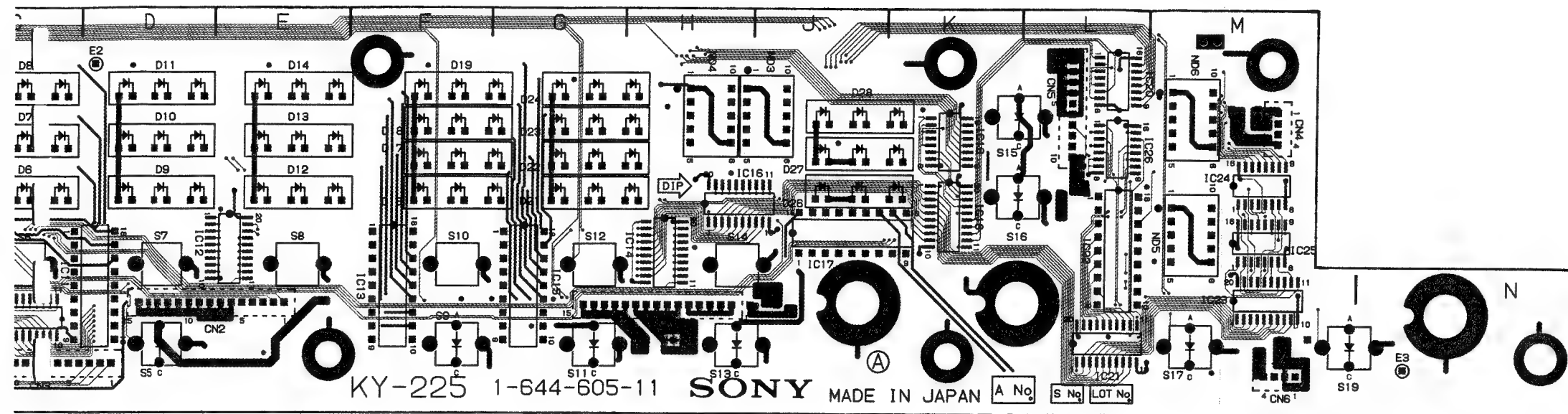
CN1	*H-4	IC22	L-3
CN2	*E-5	IC23	M-4
CN3	*C-5	IC24	M-3
CN4	*M-2	IC25	M-3
CN5	*L-1	IC26	L-2
CN6	*M-5		
D6	C-3	ND1	B-1
D7	C-2	ND2	B-2
D8	C-1	ND3	J-1
D9	D-3	ND4	H-1
D10	D-2	ND5	M-3
D11	D-1	ND6	M-1
D12	E-3	S1	A-4
D13	E-2	S2	B-5
D14	E-1	S3	B-4
D16	F-3	S4	B-3
D17	F-2	S5	D-5
D18	F-2	S6	C-4
D19	F-1	S7	D-4
D21	G-3	S8	E-4
D22	G-2	S9	F-5
D23	G-2	S10	F-4
D24	G-1	S11	G-5
D26	J-3	S12	G-4
D27	J-2	S13	H-5
D28	J-1	S14	H-4
E1	A-5	S15	K-2
E2	D-1	S16	K-3
E3	N-5	S17	M-5
		S19	M-5

\*:SOLDERING SIDE

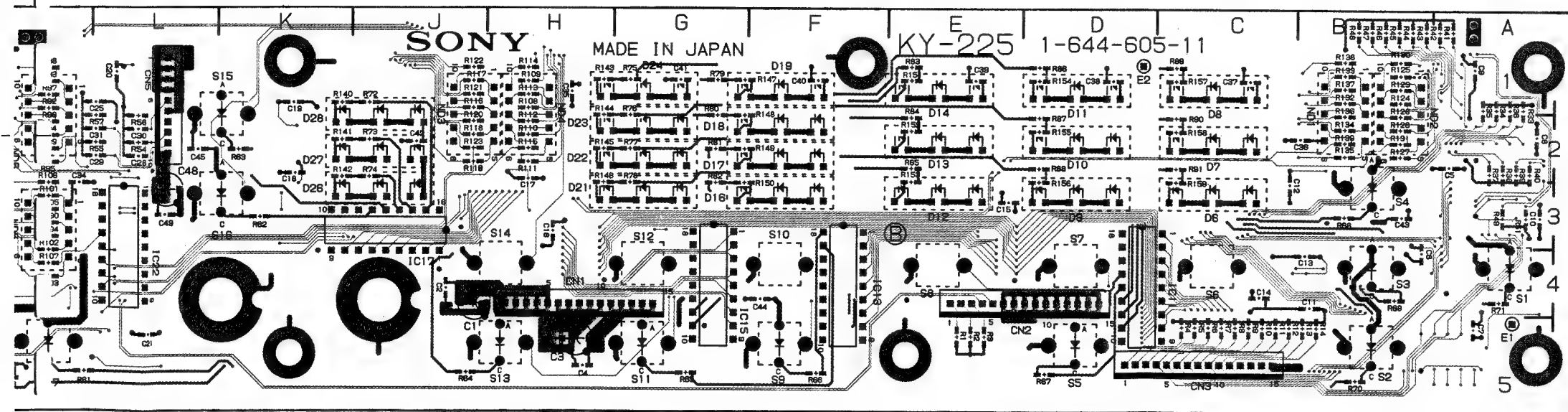
IC1	A-2
IC2	B-4
IC3	A-5
IC4	A-2
IC5	A-1
IC6	A-3
IC7	B-5
IC8	B-3
IC9	C-4
IC10	C-4
IC11	C-4
IC12	D-3
IC13	F-4
IC14	H-4
IC15	G-4
IC16	H-2
IC17	J-4
IC18	K-3
IC19	K-2
IC20	L-1
IC21	L-5







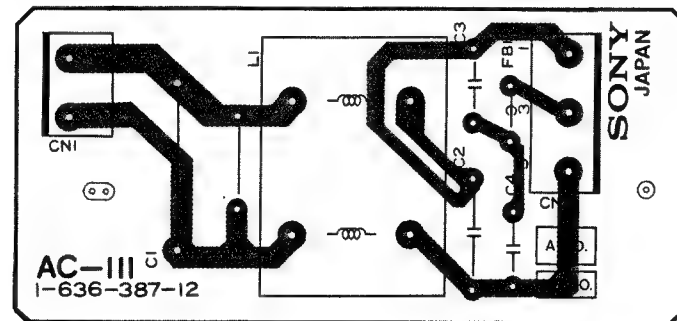
KY-225-A SIDE-  
1-644-605-11  
DFS-500/500P



KY-225-B SIDE-  
1-644-605-11  
DFS-500/500P

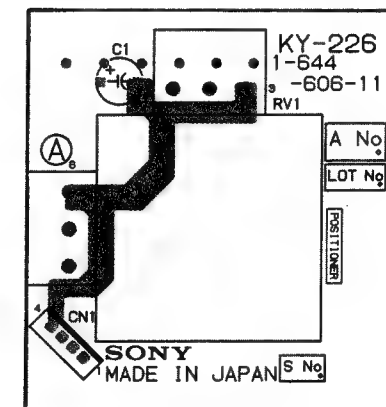


# AC-111;Line Filter (For Ek)

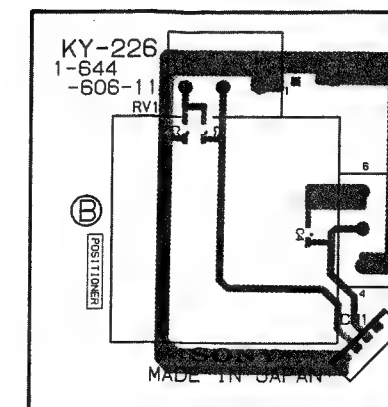


**AC-111-A SIDE-**  
1-636-387-12  
DFS-500P

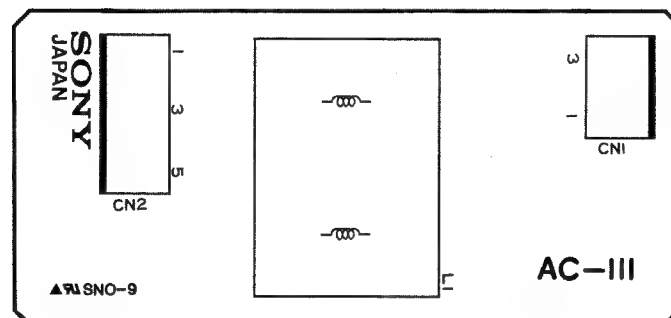
# KY-226;Positioner



**KY-226-A SIDE-**  
1-644-606-11  
DFS-500/500P

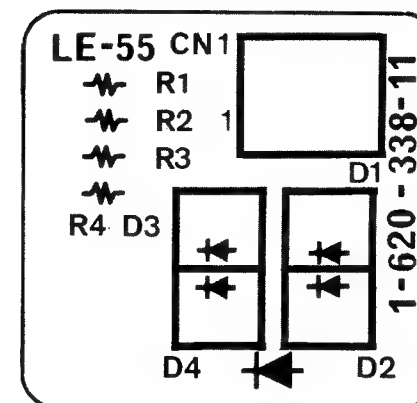


**KY-226-B SIDE-**  
1-644-606-11  
DFS-500/500P

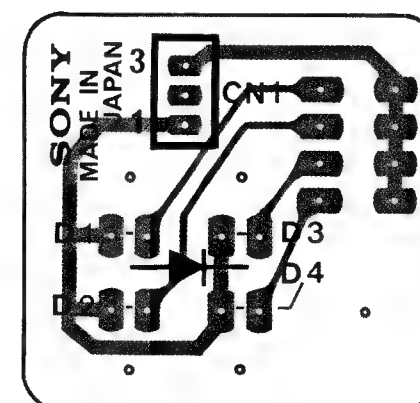


**AC-111-B SIDE-**  
1-636-387-12  
DFS-500P

# LE-55;Power Indicator



**LE-55-A SIDE-**  
1-620-338-11  
DFS-500/500P



**LE-55-B SIDE-**  
1-620-338-11  
DFS-500/500P

VR-



VR-  
1-644-6  
DFS-500

VR-1



VR-  
1-644-6  
DFS-500

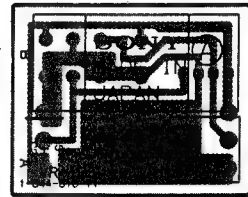
VR-1



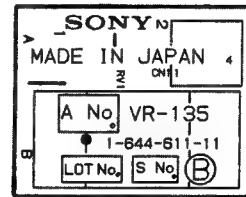
VR-  
1-644-6  
DFS-500



VR-135;Location Control  
;Title Control  
;DSK(Down Stream Keyer)Control

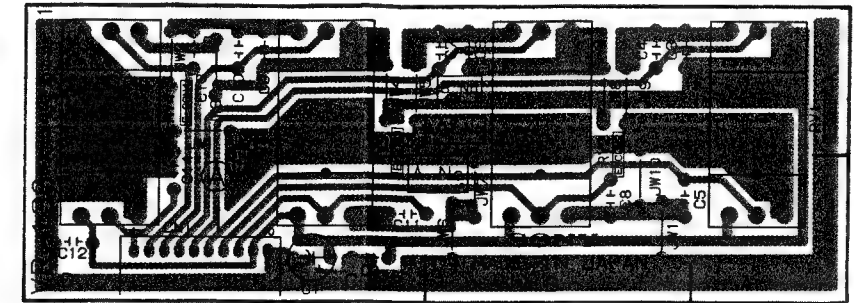


VR-135-A SIDE-  
1-644-610-11  
DFS-500/500P



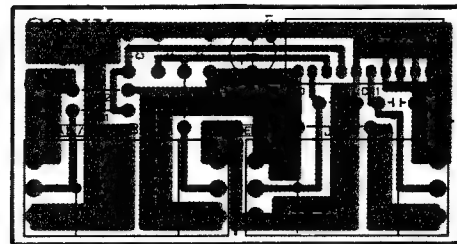
VR-135-B SIDE-  
1-644-610-11  
DFS-500/500P

VR-138;Effect Control

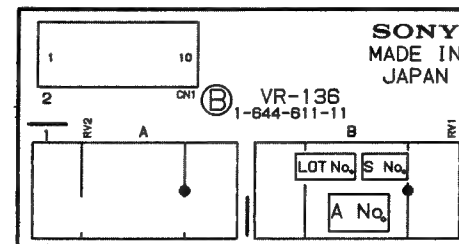


VR-138-A SIDE-  
1-644-613-11  
DFS-500/500P

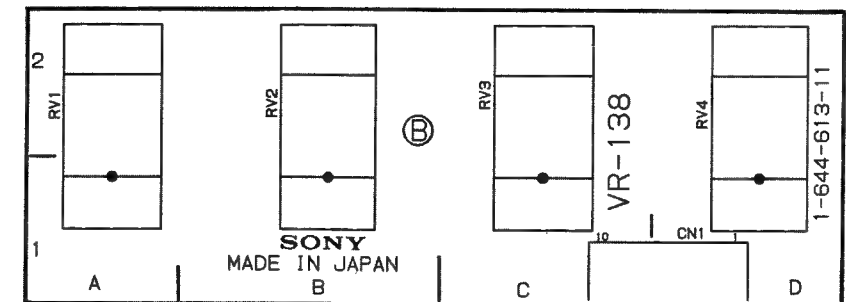
VR-136;Edge/Trail/Shadow Control



VR-136-A SIDE-  
1-644-611-11  
DFS-500/500P

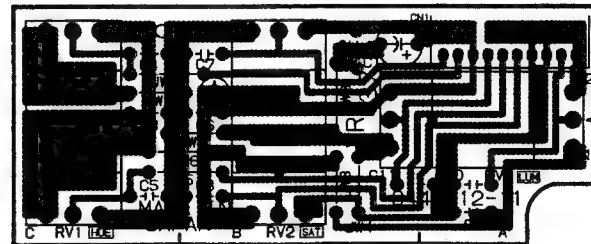


VR-136-B SIDE-  
1-644-611-11  
DFS-500/500P

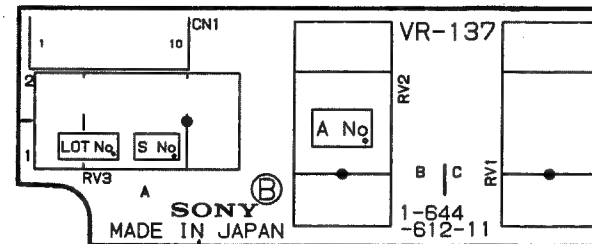


VR-138-B SIDE-  
1-644-613-11  
DFS-500/500P

VR-137;Mattes/BKGD Control



VR-137-A SIDE-  
1-644-612-11  
DFS-500/500P



VR-137-B SIDE-  
1-644-612-11  
DFS-500/500P



## SECTION 7

### SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されているIC, トランジスタ, ダイオードは, それぞれの機能を等価的に表したものです。したがって互換性を表すものではありません。(互換性のない型名が併記されている事もあります。) 部品の交換をする時は, SPARE PARTSの章を参照してください。

ICs, transistors and diodes of which functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

IC	PAGE	IC	PAGE	IC	PAGE	IC	PAGE
4F00PC .....	7-2	LM1881M .....	7-22	SN74ALS32N .....	7-2	SN74LS74ANS .....	7-29
4F08PC .....	7-2	LM311PS .....	7-22	SN74ALS374AN .....	7-29	TA7805S .....	7-34
74F32PC .....	7-2	LM358PS .....	7-22	SN74ALS574BNS .....	7-29	TC4584BF .....	7-34
74F399PC .....	7-2	LM6361M .....	7-22	SN74ALS74AN .....	7-29	TC4S66F .....	7-35
LM26LS31PC .....	7-2	M27C4001-12F1 .....	7-22	SN74HC00ANS .....	7-29	TC74HC191AF .....	7-35
AM26LS32PC .....	7-2	M51271FP .....	7-23	SN74HC02ANS .....	7-29	TC74HC221AF .....	7-35
74X-1040 .....	7-3	MAX691CPE .....	7-23	SN74HC03NS .....	7-29	TD62083AP .....	7-35
74X-1291 .....	7-2	MBM27C256A- .....	7-24	SN74HC04ANS .....	7-30	TL082CPS .....	7-36
74X-1356 .....	7-2	25CZ-X .....	7-24	SN74HC10ANS .....	7-30	TMS27C512-20JL .....	7-35
BX-1461 .....	7-3	MC14052BF .....	7-23	SN74HC113NS .....	7-24	UPC1037HA .....	7-36
		MC74HC113F .....	7-24	SN74HC132ANS .....	7-30	UPC311G2 .....	7-36
		MC74HC154N .....	7-24	SN74HC138ANS .....	7-30	UPD7004C .....	7-36
				SN74HC163ANS .....	7-30	UPD71059C .....	7-37
74X22017 .....	7-3			SN74HC164ANS .....	7-30		
74X23043 .....	7-3	N74F377N .....	7-24	SN74HC175ANS .....	7-31	XRA17809T .....	7-36
74XA1106M .....	7-3	NJM13700M .....	7-25	SN74HC20ANS .....	7-31		
CXA1260Q-Z .....	7-4	NJM2233BM .....	7-25	SN74HC21ANS .....	7-31		
74XA1451M .....	7-7	NJM2234M .....	7-25	SN74HC244ANS .....	7-31		
74XD1175AM .....	7-4	NJM2235M .....	7-25	SN74HC245ANS .....	7-31		
74XD1216M .....	7-5	NJM2245M .....	7-25	SN74HC32ANS .....	7-31		
CXD1217M .....	7-6	NJM2246M .....	7-25	SN74HC375ANS .....	7-31		
CXD2105AQ .....	7-8	NJM360M .....	7-25	SN74HC4075ANS .....	7-32		
74XD8031Q .....	7-5	NJM78L05A .....	7-25	SN74HC573BNS .....	7-32		
74XD8033Q .....	7-7	NJM78L09A .....	7-25	SN74HC574ANS .....	7-32		
74XD8054 .....	7-9	NJM7905FA .....	7-25	SN74HC74ANS .....	7-32		
CXD8070K .....	7-10	NJM7909FA .....	7-25	SN74HCT574ANS .....	7-32		
CXD8262Q .....	7-11	NJM79L09A .....	7-25	SN74LS00N .....	7-2		
74XD8263Q .....	7-12			SN74LS04N .....	7-27		
74XD8264Q .....	7-9	PAL16L8BCN .....	7-26	SN74LS08N .....	7-2		
CXD8265Q .....	7-13	PST523C .....	7-26	SN74LS10N .....	7-27		
CXD8266Q .....	7-14			SN74LS138N .....	7-27		
74XD8267Q .....	7-15	SC7S00F .....	7-26	SN74LS139AN .....	7-27		
74XD8276Q .....	7-15	SI-3522V .....	7-26	SN74LS14NS .....	7-32		
74XK1203Q .....	7-10	SM5828P .....	7-26	SN74LS164N .....	7-32		
CXK1206AM .....	7-16	SN74ALS00AN .....	7-2	SN74LS174N .....	7-28		
CXK54256P-35 .....	7-16	SN74ALS04BN .....	7-27	SN74LS175N .....	7-28		
74XK5464AP-35 .....	7-17	SN74ALS08N .....	7-2	SN74LS194AN .....	7-33		
74XK5814P-35 .....	7-17	SN74ALS10AN .....	7-27	SN74LS20N .....	7-33		
74XK58257AM-12LL .....	7-17	SN74ALS11AN .....	7-27	SN74LS21N .....	7-28		
CXK58258AP-25 .....	7-16	SN74ALS138N .....	7-27	SN74LS221NS .....	7-33		
CXK5863P-25 .....	7-18	SN74ALS139NS .....	7-27	SN74LS244N .....	7-29		
74XK5864BSP-70L .....	7-18	SN74ALS151N .....	7-27	SN74LS245N .....	7-33		
74XQ70108P-8 .....	7-19	SN74ALS153N .....	7-28	SN74LS247NS .....	7-33		
CXQ70116P-10 .....	7-20	SN74ALS157AN .....	7-28	SN74LS283NS .....	7-34		
CXQ71051P .....	7-21	SN74ALS161BN .....	7-28	SN74LS32N .....	7-2		
74XQ71054P .....	7-21	SN74ALS174N .....	7-28	SN74LS373N .....	7-34		
		SN74ALS175N .....	7-28	SN74LS374N .....	7-29		
74D14053BFP .....	7-22	SN74ALS21AN .....	7-28	SN74LS375N .....	7-34		
		SN74ALS244BN .....	7-29	SN74LS684N .....	7-34		
IB-38 .....	7-22	SN74ALS244BNS .....	7-29	SN74LS74AN .....	7-29		

#### TRANSISTOR

2SA1162G .....	7-37
2SA1462 .....	7-37
2SA952 .....	7-37
2SC1623 .....	7-37
2SC2757 .....	7-37
2SK508 .....	7-37
2SK94 .....	7-37

#### DIODE

1S2836 .....	7-38
1SS119 .....	7-38
1SS226 .....	7-38
FC54M .....	7-38
LD-701MG .....	7-38
LD-010MW .....	7-38
MA152WK .....	7-38
RD??ESB? .....	7-38
RD??M-B? .....	7-38
RD??MB .....	7-38
TLR214 .....	7-38
TLY123 .....	7-38

等価回路はICメーカーのData Bookに従いました。

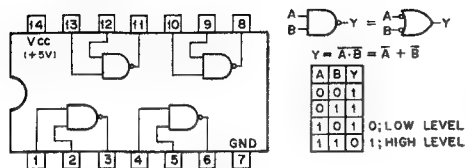
The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.



IC

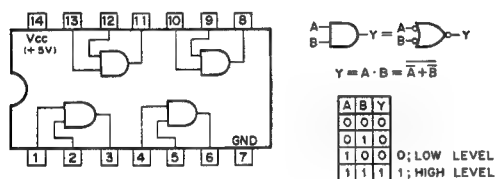
74F00PC (NS)  
SN74ALS00AN (TI)  
SN74LS00N (TI)

TTL 2-INPUT POSITIVE-NAND GATE  
- TOP VIEW -



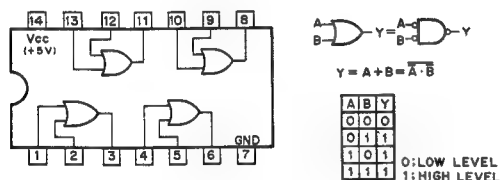
74F08PC (NS)  
SN74ALS08N (TI)  
SN74LS08N (TI)

TTL 2-INPUT POSITIVE-AND GATE  
- TOP VIEW -

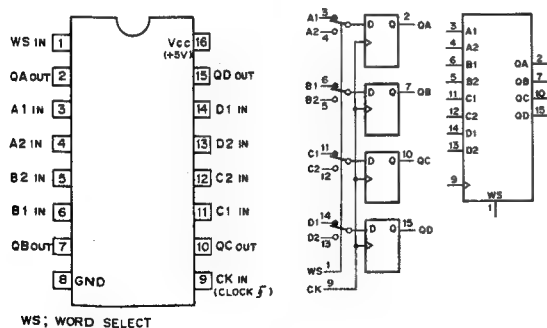


74F32PC (NS)  
SN74ALS32N (TI)  
SN74LS32N (TI)

TTL 2-INPUT POSITIVE-OR GATE  
- TOP VIEW -



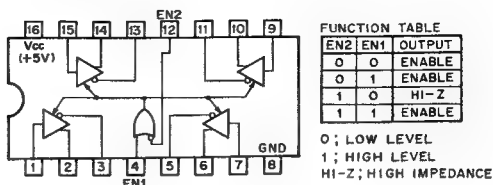
74F399PC (NS)  
TTL QUAD 2-INPUT MULTIPLEXERS WITH STORAGE  
- TOP VIEW -



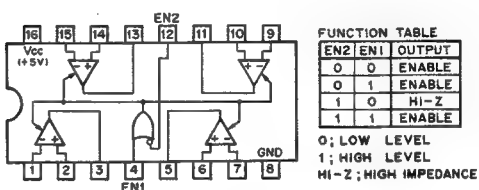
INPUTS		OUTPUTS			
WS	CK	QA	QB	QC	QD
0	1	A1	B1	C1	D1
1	1	A2	B2	C2	D2
X	0	QA0	QB0	QC0	QD0

1; HIGH LEVEL  
0; LOW LEVEL  
X; DON'T CARE

AM26LS31PC (ADVANCED MICRO DEVICES)  
HIGH SPEED DIFFERENTIAL LINE DRIVER  
- TOP VIEW -

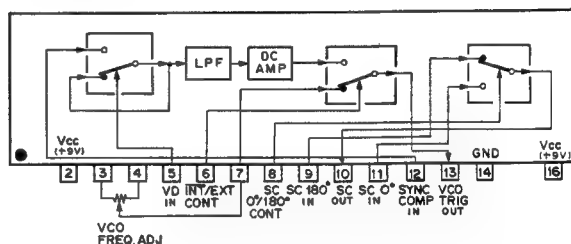


AM26LS32PC (ADVANCED MICRO DEVICES)  
HIGH SPEED DIFFERENTIAL LINE RECEIVER  
- TOP VIEW -

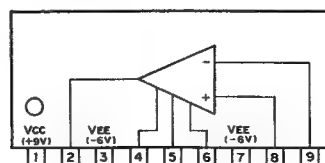


	SENSE	INPUT VOLT
LS32	±200mV	±7V
LS33	±500mV	±15V

BX1291 (SONY)  
APC AMPLIFIER AND SC 0/180° SELECTOR  
- REAR VIEW -

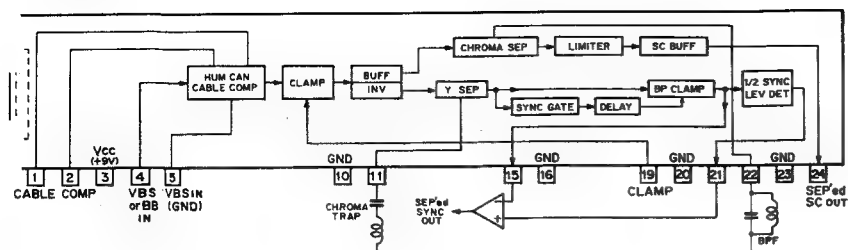


BX1356 (SONY)  
VIDEO OUTPUT AMPLIFIER  
- PRINTED SIDE -

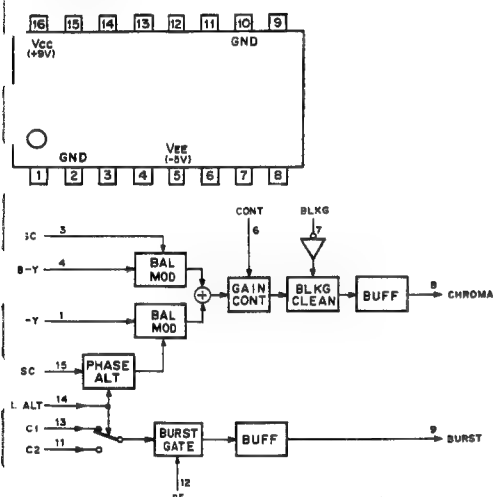




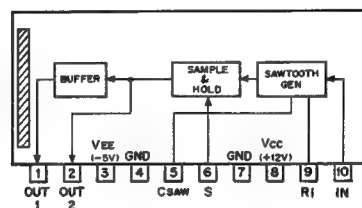
<1040 (SONY)  
 SYNC SEPARATOR  
 - REAR VIEW -



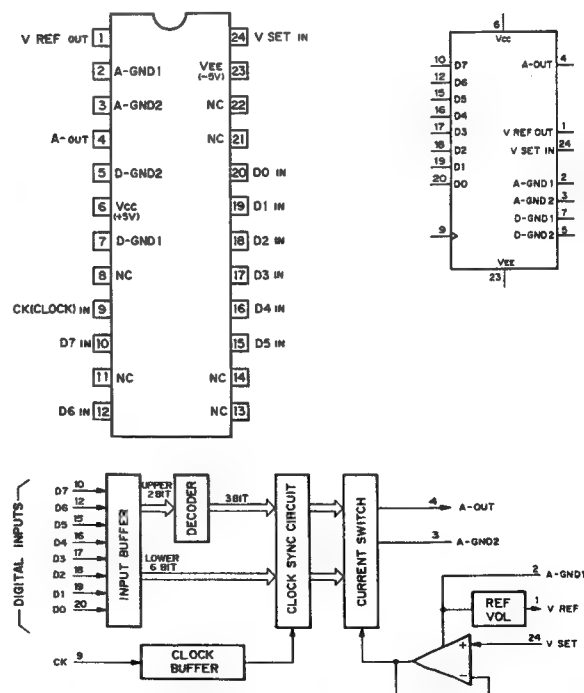
CX22017 (SONY)  
VIDEO SIGNAL PROCESSOR  
TOP VIEW -



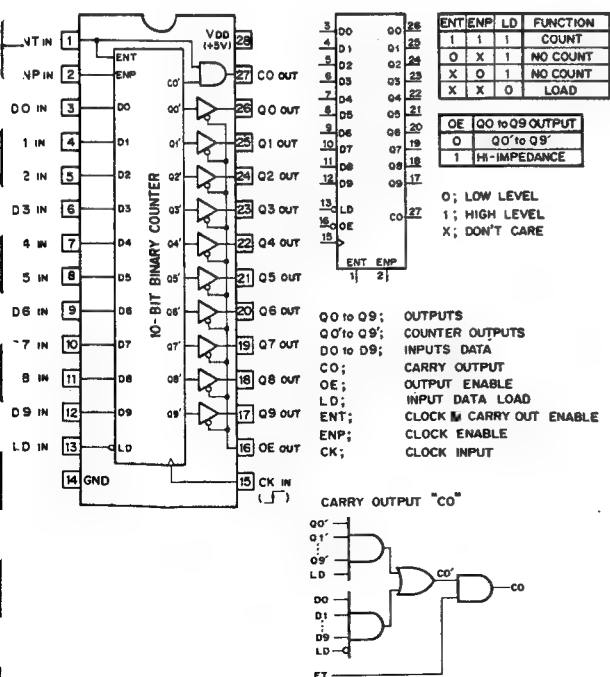
BX1461 (SONY)  
PHASE DETECTOR  
- PRINTED SIDE -



CXA1106M (SONY) FLAT PACKAGE  
8-BIT D/A CONVERTER (TTL INPUT)  
- TOP VIEW -



K23043 (SONY)  
MOS SYNCHRONOUS 10-BIT BINARY COUNTER  
- TOP VIEW -

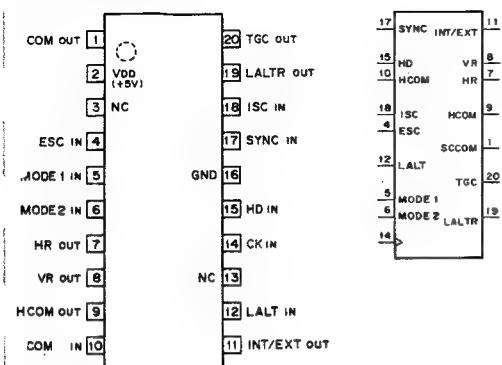






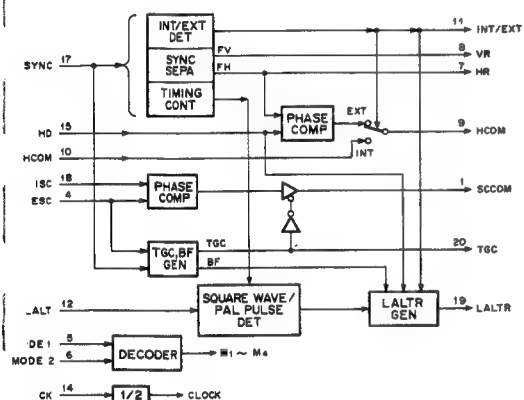


CD1216M (SONY) FLAT PACKAGE  
C-MOS GENLOCK DRIVER  
- TOP VIEW -



INPUT	MODE1	MODE2	MODE	SYSTEM
0	0	0	M1	PAL-VBS
1	0	0	M2	PALM-VBS
0	1	0	M3	PAL-SECAM-VS/SC/LALT
1	1	1	M4	NTSC-VBS/NTSC-VS/SC PALM-VS/SC/LALT

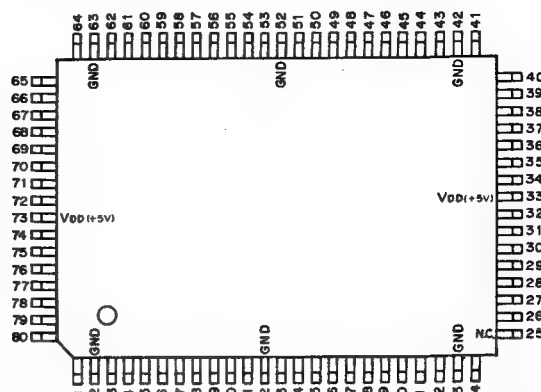
0: LOW LEVEL  
1: HIGH LEVEL



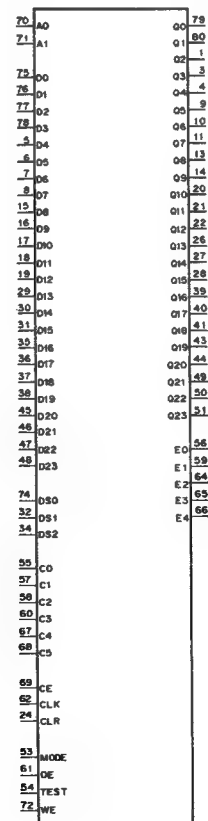
INPUT  
17 SYNC : 4fsc CLOCK INPUT  
2 VDD : SC/COLOR BURST  
3 NC : PHASE COMPARE FROM CXD1217  
4 ESC : H DRIVE FROM CXD1217  
5 DE1 : SUBCARRIER FROM CXD1217  
6 MODE 2 : LALT FROM REFERENCE SIGNAL GENERATOR  
12 LALT : SYSTEM SELECT  
14 CK : SYNC FROM REFERENCE SIGNAL GENERATOR

OUTPUT  
9 HCOM : PHASE COMPARE HR WITH HD  
8 VR : fh OF SYNC SEPARATE  
11 INT/EXT : INTERNAL/EXTERNAL SPECIFIED  
19 LALTR : LINE CHANGE RESET  
10 HCOM : PHASE COMPARE ESC WITH ISC  
13 NC : TRISTATE CONTROL  
17 SYNC : fh OF SYNC SEPARATE

CXD8031Q (SONY) FLAT PACKAGE  
C-MOS GATE ARRAY  
- TOP VIEW -



PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	O	Q2	21	O	Q11	41	O	Q18	61	I	OE
2	-	GND	22	O	Q12	42	-	GND	62	I	CLK
3	O	Q3	23	-	GND	43	O	Q19	63	-	GND
4	O	Q4	24	I	CLR	44	O	Q20	64	O	E2
5	I	D4	25	-	N.C.	45	I	D21	65	O	E3
6	I	D5	26	O	Q13	46	I	D22	66	O	E4
7	I	D6	27	O	Q14	47	I	D23	67	I	C4
8	I	D7	28	O	Q15	48	I	D24	68	I	C5
9	O	Q5	29	I	D13	49	O	Q21	69	I	CE
10	O	Q6	30	I	D14	50	O	Q22	70	I	A0
11	O	Q7	31	I	D15	51	O	Q23	71	I	A1
12	-	GND	32	I	DS1	52	-	GND	72	I	WE
13	O	Q8	33	-	VDD (+5V)	53	I	MODE	73	-	VDD (+5V)
14	O	Q9	34	I	DS2	54	I	TEST	74	I	DS0
15	I	D8	35	I	D16	55	I	C0	75	I	D0
16	I	D9	36	I	D17	56	O	E0	76	I	D1
17	I	D10	37	I	D18	57	I	C1	77	I	D2
18	I	D11	38	I	D19	58	I	C2	78	I	D3
19	I	D12	39	O	Q16	59	O	E1	79	O	Q0
20	O	Q10	40	O	Q17	60	I	C3	80	O	Q1



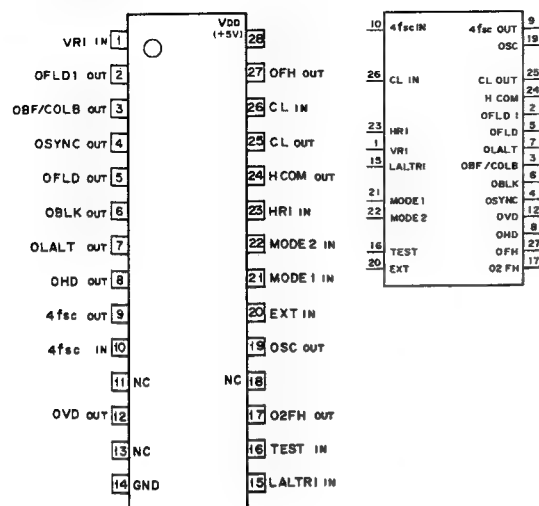
A0 - 1 : ADDRESS  
C0 - C5 : COMMAND  
CE : COMMAND ENABLE  
CLK : CLOCK  
CLR : CLEAR  
D0 - D23 : DATA INPUT  
DS0 - DS2 : DATA STROBE  
E0 - E4 : EXPONENT OUTPUT  
MODE : OUTPUT MODE  
OE : OUTPUT ENABLE  
Q0 - Q23 : DATA OUTPUT  
TEST : TEST PIN  
WE : WRITE ENABLE



## CXD1217M (SONY) FLAT PACKAGE

## CMOS SYNC GENERATOR

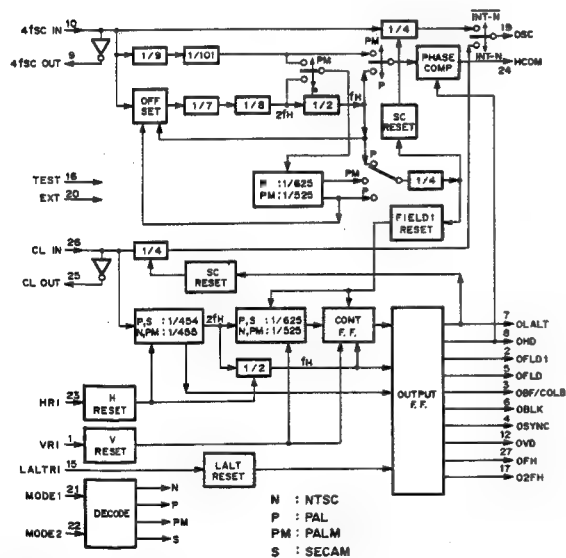
- TOP VIEW -



SYSTEM	4fsc	CLOCK
NTSC	910H	910H
PAL	1135H+2H	908H
PALM	909H	910H
SECAM	—	908H

INPUT		SYSTEM
MODE1	MODE2	
0	0	NTSC
0	1	SECAM
1	0	PALM
1	1	PAL

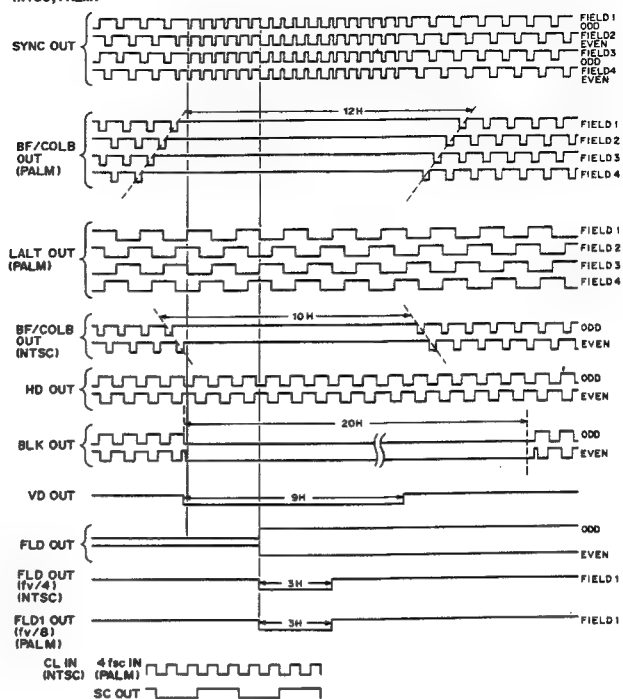
0 : LOW LEVEL  
1 : HIGH LEVEL



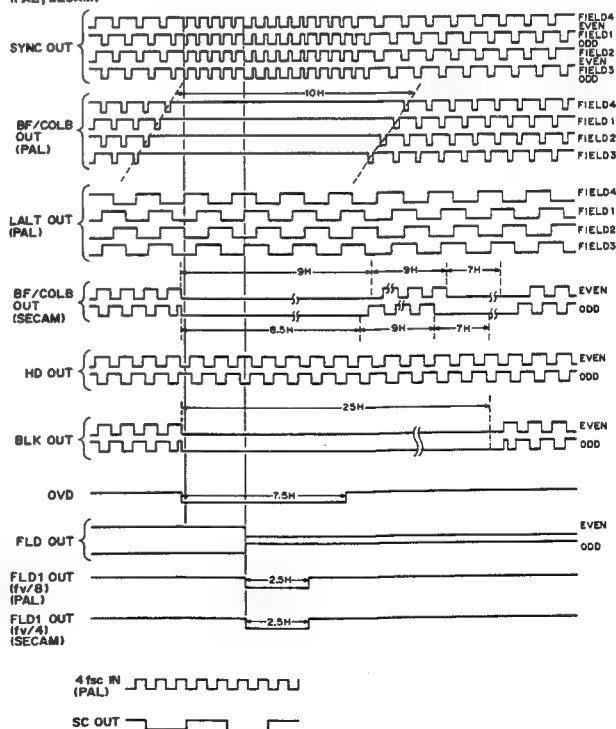
**INPUT**  
4fsc IN : 4fsc INPUT  
CL IN : CLOCK INPUT  
EXT : SYNC MODE SELECT  
(L : INTERNAL / H : EXTERNAL)  
HRI : H RESET  
LALTRI : LINE CHANGE RESET  
MODE 1,2 : SYSTEM SELECT  
VRI : V RESET

**OUTPUT**  
4fsc OUT : 4fsc OUTPUT  
CL OUT : CLOCK OUTPUT  
HCOM : PHASE COMPARATOR  
O2FH : 2FH OUTPUT  
OBF/COLB : BURST FLAG/COLOR BLANKING  
OBLK : COMPOSITE BLANKING  
OFH : H FREQUENCY  
OFLD : EVEN, ODD  
OFLD1 : FIELD1  
OHD : H DRIVE  
OLALT : LINE CHANGE  
OSC : SUBCARRIER  
OSYNC : COMPOSITE SYNC  
OVD : V DRIVE

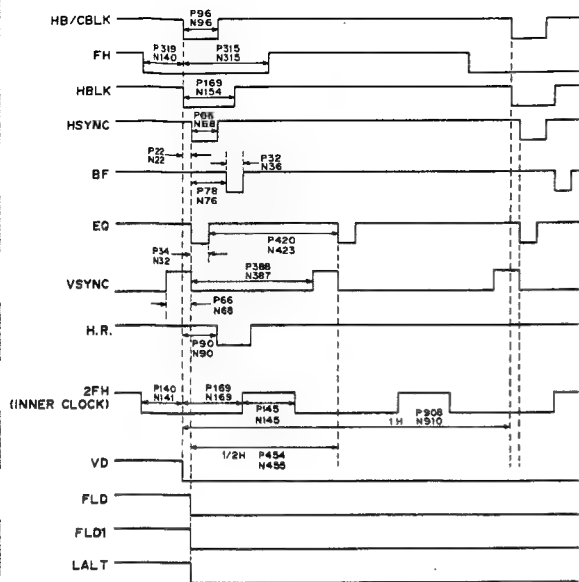
(NTSC, PALM)



(PAL, SECAM)

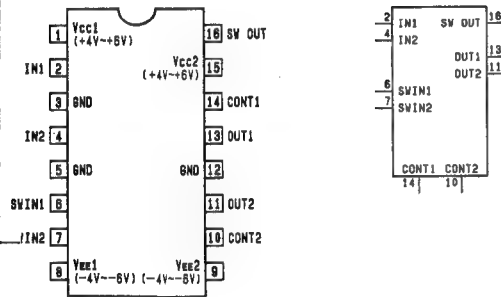






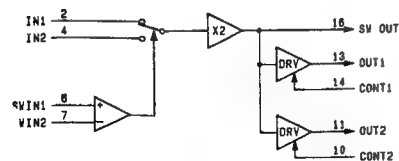
P: PAL, SECAM  
N: NTSC, PALM

XA1451M (SONY)  
WIDEBAND VIDEO SWITCH  
- TOP VIEW -

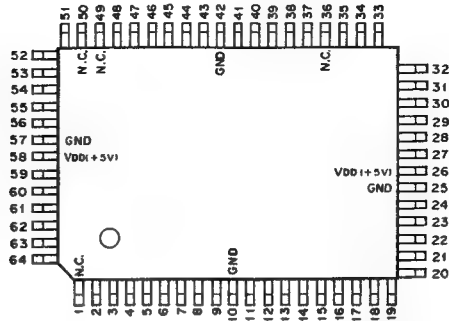


INPUT  
CONT1, 2 : POWER SAVE CONTROL PIN OF DRV.1 AND DRV.2  
IN1, 2 : 1/2-CHANNEL INPUT PIN  
SWIN1, 2 : IN1/IN2 PINS SWITCH CONTROL PIN

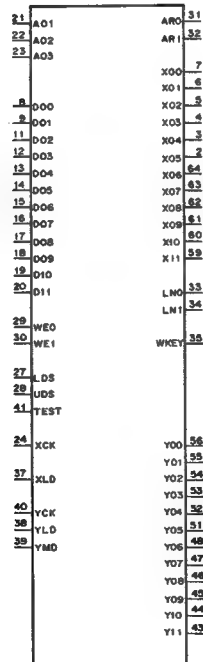
OUTPUT  
OUT1, 2 : OUTPUT PIN OF DRV.1/2  
SWOUT : OUTPUTS IN1 PIN OR IN2 PIN WHICH HAS BEEN  
SELECTED BY SWITCH.



CXD8033Q (SONY) FLAT PACKAGE  
CMOS GATE ARRAY  
- TOP VIEW -



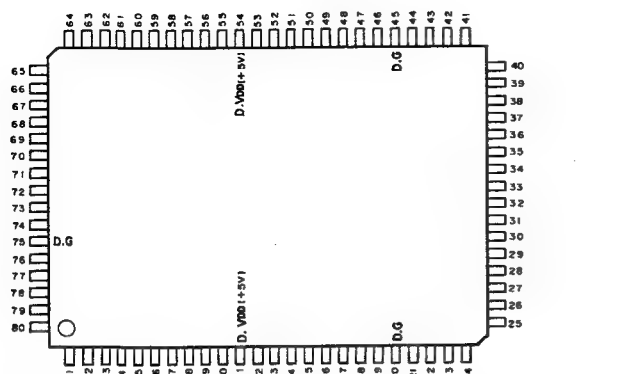
PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	-	N.C.	23	I	A03	45	O	Y09
2	O	X05	24	I	XCK	46	O	Y08
3	O	X04	25	-	GND	47	O	Y07
4	O	X03	26	-	VDD(+5V)	48	O	Y06
5	O	X02	27	I	LDS	49	-	N.C.
6	O	X01	28	I	UDS	50	-	N.C.
7	O	X00	29	I	WE0	51	O	Y05
8	I	D00	30	I	WE1	52	O	Y04
9	I	D01	31	O	AR0	53	O	Y03
10	-	GND	32	O	AR1	54	O	Y02
11	I	D02	33	O	LN0	55	O	Y01
12	I	D03	34	O	LN1	56	O	Y00
13	I	D04	35	O	WKEY	57	-	GND
14	I	D05	36	-	N.C.	58	-	VDD(+5V)
15	I	D06	37	I	XLD	59	O	X11
16	I	D07	38	I	YLD	60	O	X10
17	I	D08	39	I	YMD	61	O	X09
18	I	D09	40	I	YCK	62	O	X08
19	I	D10	41	I	TEST	63	O	X07
20	I	D11	42	-	GND	64	O	X06
21	I	A01	43	O	Y11			
22	I	A02	44	O	Y10			



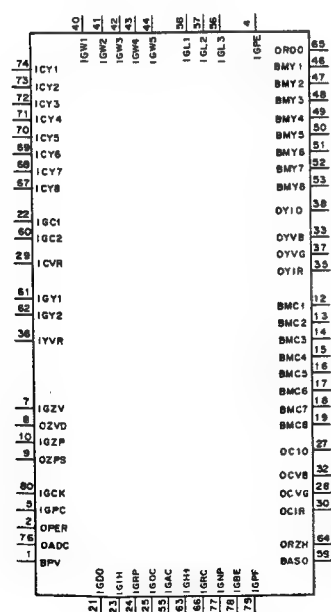
A01 - A03 : ADDRESS 01 - 03  
AR0, 1 : VALID AREA 0, 1  
D00 - D11 : DATA INPUT 00 - 11  
LDS : LOWER DATA STROBE  
LN0, 1 : VALID LINE 0, 1  
UDS : UPPER DATA STROBE  
TEST : TEST PIN  
WE0, 1 : WRITE ENABLE 0, 1  
X00 - X11 : X CONVERTER OUTPUT  
XCK : X CLOCK  
WKEY : WIPE KEY  
XLD : X LOAD  
Y00 - Y11 : Y COUNTER OUTPUT 00 - 11  
YCK : Y CLOCK  
YLD : Y LOAD  
YMD : Y MODE



CXD2105AQ (SONY) FLAT PACKAGE  
C-MOS DIGITAL COMB FILTER FOR VTR'S  
- TOP VIEW -



PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	BPV	21	I	IGD0	41	I	IGW2	61	I	IGY1
2	O	OPER	22	I	IGC1	42	I	IGW3	62	I	IGY2
3	-	A.Vdd P	23	I	IGH	43	I	IGW4	63	I	IGH1
4	I	IGPE	24	I	IGRP	44	I	IGW5	64	O	ORZH
5	I	IGPC	25	I	IGOC	45	-	D.G	65	O	OR00
6	-	A.G P	26	-	A.Vdd C	46	I/O	BMV1	66	I	IGRC
7	I	IGZV	27	O	OCIO	47	I/O	BMV2	67	I	ICY8
8	O	OZVD	28	O	OCVG	48	I/O	BMV3	68	I	ICY7
9	O	OZPS	29	-	ICVR	49	I/O	BMV4	69	I	ICY6
10	I	IGZP	30	O	OCIR	50	I/O	BMV5	70	I	ICY5
11	-	D.Vdd	31	-	A.G C	51	I/O	BMV6	71	I	ICY4
12	I/O	BMC1	32	O	OCVB	52	I/O	BMV7	72	I	ICY3
13	I/O	BMC2	33	O	OYVB	53	I/O	BMV8	73	I	ICY2
14	I/O	BMC3	34	-	A.G Y	54	-	D.Vdd	74	I	ICY1
15	I/O	BMC4	35	O	OYIR	55	I	IGAC	75	-	D.G
16	I/O	BMC5	36	-	IYVR	56	I	IGL3	76	O	OADC
17	I/O	BMC6	37	O	OYVG	57	I	IGL2	77	I	IGNP
18	I/O	BMC7	38	O	OYIO	58	I	IGL1	78	I	IGBE
19	I/O	BMC8	39	-	A.Vdd Y	59	I/O	BASO	79	I	IGPF
20	-	D.G	40	I	IGW1	60	I	IGC2	80	I	IGCK



**INPUT**

- BPV : EXT/INT CLOCK SELECT
- ICVR : ESTABLISHES MAXIMUM AMPLITUDE VALUE FOR OCIO (PIN 27)
- IGAC : V CORRELATION CIRCUIT ON/OFF
- IGBE : SINGLE WAVE DETECTION ON/OFF (Y/C SEPARATION MODE)
- IGC1 : V CORRELATION CIRCUIT SELECT
- IGC2 : CHROMA FLAT SECTION HORIZONTAL FILTER SELECT (Y/C SEPARATION MODE)
- IGCK : EXTERNAL CLOCK
- IGD0 : DROPOUT CORRECTION
- IGH1 : FLAT SECTION HORIZONTAL FILTER SELECT (Y/C SEPARATION MODE)
- IGH : SLEW MODE SET
- IGL1 - IGL3 : LIMITER LEVEL ADJUST FOR Y SIGNAL COMB FILTER
- IGNP : NTSC/PAL FORMAT SELECT
- IGOC : OUTPUT ENABLE
- IGPC : VCO CONTROL
- IGPE : TEST
- IGPF : PLL SUBCARRIER
- IGRC : DELAY LINE LENGTH ADJUST
- IGRP : Y/C SEPARATION AND PLAYBACK MODE SELECT
- IGW1 - IGW5 : Y COMB FILTER DEPTH ADJUST
- IGY1, IGY2 : EDGE SECTION HORIZONTAL FILTER SELECT (Y/C SEPARATION MODE)
- IGZP : 1-BIT DELAY CIRCUIT
- IGZV : VCR HEAD SWITCHING
- IYC1 - IYC8 : VIDEO SIGNAL
- IYVR : ESTABLISHES MAXIMUM AMPLITUDE VALUE FOR OYIO (PIN 38)

**OUTPUT**

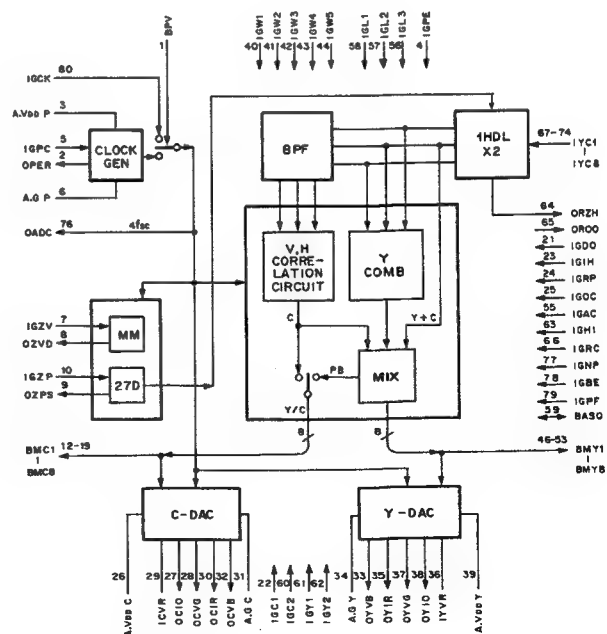
- OADC : CLOCK
- OCIO : CHROMA ANALOG SIGNAL
- OCIR : CONNECT A RESISTOR 16x LARGER THAN THE RESISTOR AT OCIO (PIN 27)
- OCVB : CONNECT TO DIGITAL GND WHICH HAS A CAPACITANCE OF UP TO 0.1  $\mu$ F
- OCVG : CONNECT TO AN ANALOG POWER SUPPLY WHICH HAS A CAPACITANCE OF UP TO 0.1  $\mu$ F
- OPER : PLL ERROR
- OR00 : "0" IS DETECTED AT ALL INPUTS
- ORZH : 1-BIT DELAY CIRCUIT
- OYIO : Y ANALOG SIGNAL
- OYIR : CONNECT A RESISTOR 16x LARGER THAN THE RESISTOR AT OYIO (PIN 38)
- OYVB : CONNECT TO DIGITAL GND WHICH HAS A CAPACITANCE OF UP TO 0.1  $\mu$ F
- OYVG : CONNECT TO AN ANALOG POWER SUPPLY WHICH HAS A CAPACITANCE OF UP TO 0.1  $\mu$ F
- OZPS : 1-BIT DELAY CIRCUIT
- OZVD : VSYNC PERIOD MASK

**INPUT/OUTPUT**

- BASO : EDGE DETECTION LEVEL SELECT (Y/C SEPARATION MODE)
- BMC1 - BMC8 : CHROMA DIGITAL SIGNAL
- BMV1 - BMV8 : Y DIGITAL SIGNAL

**OTHER**

- A.G C : ANALOG GND FOR CHROMA D/A
- A.G P : ANALOG GND FOR VCO
- A.G Y : ANALOG GND FOR Y D/A
- A.Vdd C : ANALOG POWER SUPPLY FOR CHROMA D/A
- A.Vdd P : ANALOG POWER SUPPLY FOR VCO
- A.Vdd Y : ANALOG POWER SUPPLY FOR Y D/A
- D.G : DIGITAL GND
- D.Vdd : POWER SUPPLY FOR DIGITAL

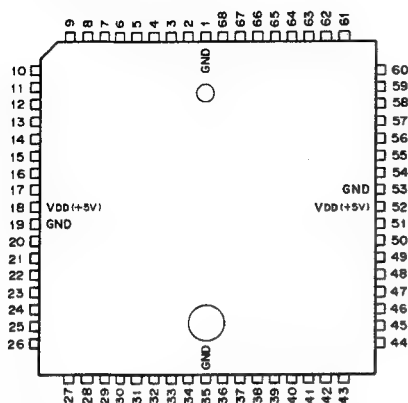




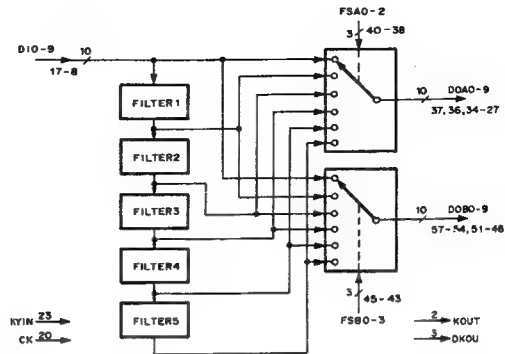
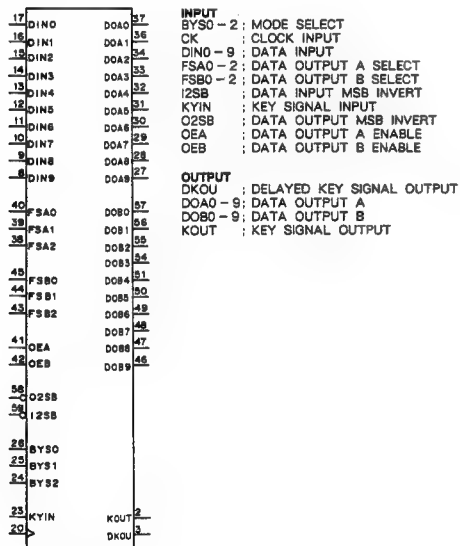




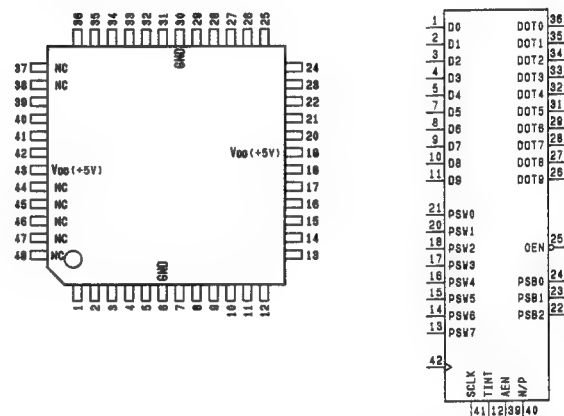
## CXD8070K (SONY)

C-MOS DIGITAL VIDEO LPF  
- TOP VIEW -

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	-	GND	18	-	VDD	35	-	GND	52	-	VDD
2	O	KOUT	19	-	GND	36	O	DOA1	53	-	GND
3	O	DKOU	20	-	CK	37	O	DOA0	54	O	DOB3
4	-	NC	21	-	NC	38	I	FSA2	55	O	DOB2
5	-	NC	22	-	NC	39	I	FSA1	56	O	DOB1
6	-	NC	23	I	KYIN	40	I	FSA0	57	O	DOB0
7	-	NC	24	I	BYS2	41	I	OEA	58	I	OZSB
8	I	DIN9	25	I	BYS1	42	I	OEB	59	I	I2SB
9	I	DIN8	26	I	BYS0	43	I	FSB2	60	-	NC
10	I	DIN7	27	O	DOA9	44	I	FSB1	61	-	NC
11	I	DIN6	28	O	DOA8	45	I	FSB0	62	-	NC
12	I	DIN5	29	O	DOA7	46	O	DOB9	63	-	NC
13	I	DIN4	30	O	DOA6	47	O	DOB8	64	-	NC
14	I	DIN3	31	O	DOA5	48	O	DOB7	65	-	NC
15	I	DIN2	32	O	DOA4	49	O	DOB6	66	-	NC
16	I	DIN1	33	O	DOA3	50	O	DOB5	67	-	NC
17	I	DIN0	34	O	DOA2	51	O	DOB4	68	-	NC

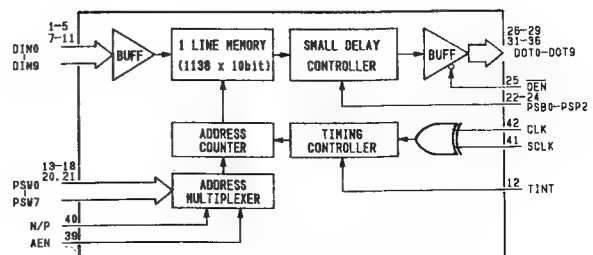


## CXK1203Q (SONY)

C-MOS DIGITAL LINE MEMORY  
- TOP VIEW -

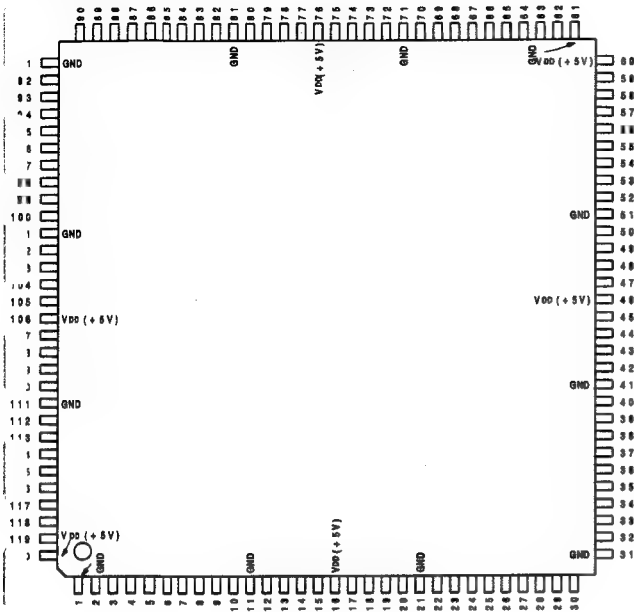
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	D0	13	I	PSW7	25	I	OEN	37	-	N.C.
2	I	D1	14	I	PSW6	26	O	DOT9	38	-	N.C.
3	I	D2	15	I	PSW5	27	O	DOT8	39	I	AEN
4	I	D3	16	I	PSW4	28	O	DOT7	40	I	N/P
5	I	D4	17	I	PSW3	29	O	DOT6	41	I	CLK
6	-	GND	18	I	PSW2	30	-	GND	42	I	CLK
7	I	D5	19	-	VDD	31	O	DOT5	43	-	VDD
8	I	D6	20	I	PSW1	32	O	DOT4	44	-	N.C.
9	I	D7	21	I	PSW0	33	O	DOT3	45	-	N.C.
10	I	D8	22	I	PSB2	34	O	DOT2	46	-	N.C.
11	I	D9	23	I	PSB1	35	O	DOT1	47	-	N.C.
12	I	TINT	24	I	PSB0	36	O	DOT0	48	-	N.C.

AEN: LINE MEMORY SELECT  
CLK: CLOCK  
DIN0-DIN9: VIDEO DATA INPUT  
DOT0-DOT9: VIDEO DATA OUTPUT  
N/P: NTSC/PAL/SECAM SELECT  
OEN: OUTPUT ENABLE  
PSB0-PSB2: DELAY STEP SELECT (1 BITxN)  
PSW0-PSW7: DELAY STEP SELECT (8 BITxN)  
SCLK: CLOCK EDGE SELECT  
TINT: TEST





D8262Q (SONY)

CMOS ADDRESS ARITHMETIC  
- TOP VIEW -

(VDD = +5V)

N	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	-	GND	51	-	GND	81	-	GND	81	-	GND
2	I	N4	32	I	T13	82	I	D11	92	O	R4
3	I	N5	33	I	T14	83	I	D12	93	O	R5
4	I	N6	34	I	T15	84	I	D13	94	O	R6
5	I	N7	35	I	ST	85	I	D14	95	O	R7
6	I	N8	36	I	MODE	86	I	D15	96	O	R8
7	I	N9	37	I	OVFL	87	O	Q6	97	O	R9
8	I	N10	38	I	TEST	88	O	Q1	98	O	R10
9	I	N11	39	I	CLR	89	O	Q2	99	O	R11
10	I	N12	40	I	WE	70	O	Q3	100	O	R12
11	-	GND	41	-	GND	71	-	GND	101	-	GND
12	I	N13	42	I	LDS	72	O	Q4	102	O	R13
13	I	N14	43	I	UDS	73	O	Q5	103	O	R14
14	I	N15	44	I	A1	74	O	Q8	104	O	R15
15	I	SN/N16	45	I	A2	75	O	Q7	105	O	ORR
16	-	VDD	46	-	VDD	76	-	VDD	106	-	VDD
17	I	T0	47	I	A3	77	O	Q8	107	I	IR0
18	I	T1	48	I	D0	78	O	Q9	108	I	IR1
19	I	T2	49	I	D1	79	O	Q10	109	I	S0
20	I	T3	50	I	D2	80	O	Q11	110	I	S1
21	-	GND	51	-	GND	81	-	GND	111	-	GND
22	I	T4	52	I	D3	82	O	Q12	112	I	CK
23	I	T5	53	I	D4	83	O	Q13	113	I	S2
24	I	T6	54	I	D5	84	O	Q14	114	I	S3
25	I	T7	55	I	D6	85	O	Q15	115	I	SM
26	I	T8	56	I	D7	86	O	ORQ	116	I	N0
27	I	T9	57	I	D8	87	O	R0	117	I	N1
28	I	T10	58	I	D9	88	O	R1	118	I	N2
29	I	T11	59	I	D10	89	O	R2	119	I	N3
30	I	T12	60	-	VDD	90	O	R3	120	-	VDD

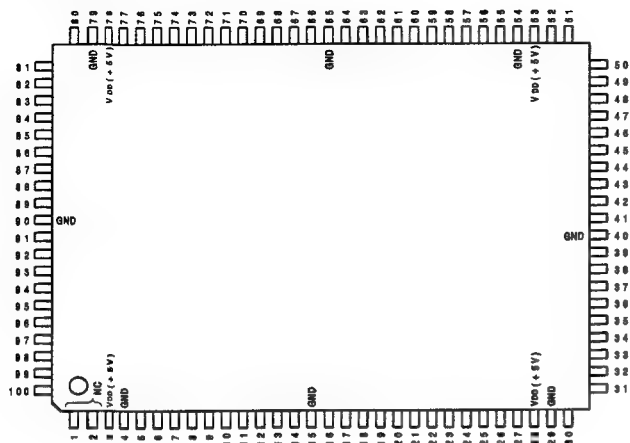
116	N0	Q0	87	INPUT
117	N1	Q1	88	A1-A3 : INTERNAL REGISTER ADDRESS
118	N2	Q2	89	CK : CLOCK
119	N3	Q3	70	CLR : INTERNAL REGISTER CLEAR
2	N4	Q4	72	D0-D15 : INTERNAL REGISTER DATA
3	N5	Q5	73	IR0 : ORQ·ORR OUTPUT CONTROL AT PACE-PECTIVE MODE
4	N6	Q6	74	IR1 : ORQ·ORR OUTPUT CONTROL AT TURN OVER PAGE MODE
5	N7	Q7	75	LDS : LOWER DATA STROBE
6	N8	Q8	77	MODE : MODE SELECT
7	N9	Q9	78	(0:PACE-PECTIVE MODE, 1:TURN OVER PAGE MODE)
8	N10	Q10	79	N0-N15 : N DATA PORT
9	N11	Q11	80	OVFL : OVERFLOW
10	N12	Q12	82	S0-S3 : SHIFT NUMERICAL PORT
11	N13	Q13	83	SM : SHIFT MODE SELECT
12	N14	Q14	84	(0:RIGHT SHIFT MODE, 1:LEFT SHIFT MODE)
13	N15	Q15	85	SN/N16 : PACE-PECTIVE MODE: N DATA CODE
17	T0	R0	87	TURN OVER PAGE MODE: N DATA (M8B)
18	T1	R1	88	ST : PACE-PECTIVE MODE: T DATA CODE
19	T2	R2	89	TURN OVER PAGE MODE: DON'T CARE
20	T3	R3	90	T0-T15 : T DATA PORT
21	T4	R4	92	TEST : TEST TERMINAL
22	T5	R5	93	UDS : UPPER DATA STROBE
23	T6	R6	94	WE : WRITE ENABLE
24	T7	R7	95	OUTPUT
25	T8	R8	96	ORQ : O DATA CLIPPING SIGNAL
26	T9	R9	97	ORR : R DATA CLIPPING SIGNAL
27	T10	R10	98	Q0-Q15 : O DATA PORT
28	T11	R11	99	R0-R15 : R DATA PORT
29	T12	R12	100	
30	T13	R13	102	
31	T14	R14	103	
32	T15	R15	104	
46	D0	ORQ	88	
47	D1	ORR	105	
52	D2	WE	40	
53	D3	UDS	43	
54	D4	LDS	42	
55	D5			
56	D6		109	
57	D7		110	
58	D8		113	
59	D9		114	
62	D10	SM	116	
63	D11	SN/N16	15	
64	D12	ST	35	
65	D13		107	
66	D14	IR0	108	
67	D15	IR1	38	
44	A1	MODE	87	
45	A2	OVFL	87	
47	A3	TEST	35	
112	CLR		39	



CXD8263Q (SONY)

C-MOS VARIABLE LOW PASS FILTER

- TOP VIEW -



(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	-	NC	26	I	IE0	51	I	IC4	76	O	OB2
2	-	NC	27	I	IE1	52	I	IC5	77	O	OB3
3	-	VDD	28	-	VDD	53	-	VDD	78	-	VDD
4	-	GND	29	-	GND	54	-	GND	79	-	GND
5	I	IA4	30	I	IE2	55	I	IC6	80	O	OB4
6	I	IA6	31	I	IE3	56	I	IC7	81	O	OB5
7	I	IA8	32	I	IE4	57	I	IC8	82	O	OB6
8	I	IA7	33	I	IE5	58	I	IB1	83	O	OB7
9	I	IA0	34	I	IE6	59	I	IB2	84	I	SOB0
10	I	IA1	35	I	IE7	60	I	IB3	85	I	SOB1
11	I	IA2	36	I	ID0	61	I	IB4	86	O	OA0
12	I	IA3	37	I	ID1	62	I	IB5	87	O	OA1
13	I	IA4	38	I	ID2	63	I	IB6	88	O	OA2
14	I	IA5	39	I	ID3	64	I	IB7	89	O	OA3
15	-	GND	40	-	GND	65	-	GND	90	-	GND
16	I	IA6	41	I	CK	66	I	IA0	91	O	OA4
17	I	IA7	42	I	MODE	67	I	IA1	92	O	OA5
18	I	IA0	43	I	ID4	68	I	IA2	93	O	OA6
19	I	IA1	44	I	ID5	69	I	IA3	94	O	OA7
20	I	IA2	45	I	ID6	70	I	IA4	95	I	SOA0
21	I	IA3	46	I	ID7	71	I	IA5	96	I	SOA1
22	I	IA4	47	I	ID0	72	I	IA6	97	I	IH0
23	I	IA5	48	I	ID1	73	I	IA7	98	I	IH1
24	I	IA6	49	I	ID2	74	O	OB0	99	I	IH2
25	I	IA7	50	I	ID3	75	O	OB1	100	I	IH3

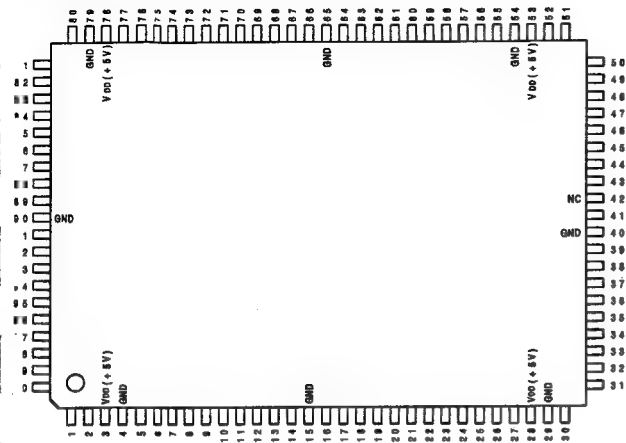
73	IA7	OA7	94
72	IA6	OA6	93
71	IA5	OA5	92
70	IA4	OA4	91
69	IA3	OA3	90
68	IA2	OA2	89
67	IA1	OA1	88
66	IA0	OA0	87
65	IB7	OB7	86
64	IB6	OB6	85
63	IB5	OB5	84
62	IB4	OB4	83
61	IB3	OB3	82
60	IB2	OB2	81
59	IB1	OB1	80
58	IB0	OB0	79
57	IC7	OC7	78
56	IC6	OC6	77
55	IC5	OC5	76
54	IC4	OC4	75
53	IC3	OC3	74
52	IC2	OC2	73
51	IC1	OC1	72
50	IC0	OC0	71
49	ID7	OD7	70
48	ID6	OD6	69
47	ID5	OD5	68
46	ID4	OD4	67
45	ID3	OD3	66
44	ID2	OD2	65
43	ID1	OD1	64
42	ID0	OD0	63
41	IE7	OE7	62
40	IE6	OE6	61
39	IE5	OE5	60
38	IE4	OE4	59
37	IE3	OE3	58
36	IE2	OE2	57
35	IE1	OE1	56
34	IE0	OE0	55
33	IF7	OF7	54
32	IF6	OF6	53
31	IF5	OF5	52
30	IF4	OF4	51
29	IF3	OF3	50
28	IF2	OF2	49
27	IF1	OF1	48
26	IF0	OF0	47

**INPUT**  
 CK : CLOCK  
 IA0-IA7 : A DATA PORT  
 IB0-IB7 : B DATA PORT  
 IC0-IC7 : C DATA PORT  
 ID0-ID7 : D DATA PORT  
 IE0-IE7 : E DATA PORT  
 IF0-IF7 : F DATA PORT  
 IG0-IG7 : G DATA PORT  
 IH0-IH7 : H DATA PORT  
 MODE : MODE SELECT (0:COMPLEMENT 2 MODE, 1:INTEGER MODE)  
 SOA0,SOA1: OA0-OA7 OUTPUT DATA SELECT  
 SOB0,SOB1: OB0-OB7 OUTPUT DATA SELECT

**OUTPUT**  
 OA0-OA7 : A DATA PORT  
 OB0-OB7 : B DATA PORT

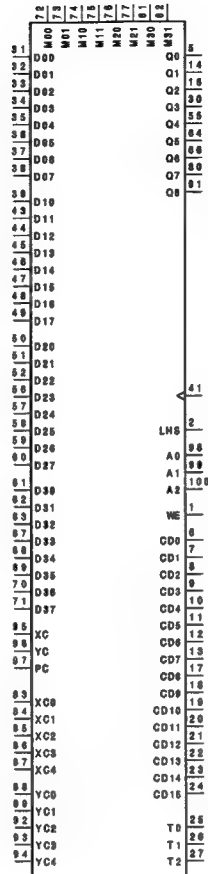


D8265Q (SONY)

CMOS LINEAR INTERPOLATION ARITHMETIC  
- TOP VIEW -

(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	WE	26	I	T1	51	I	D21	76	I	M20
2	I	LH8	27	I	T2	52	I	D22	77	I	M21
3	-	VDD	28	-	VDD	53	-	VDD	78	-	VDD
4	-	GND	29	-	GND	54	-	GND	79	-	GND
5	O	Q0	30	O	Q8	55	O	Q4	80	O	Q7
6	I	CD0	31	I	D00	56	I	D23	81	I	M30
7	I	CD1	32	I	D01	57	I	D24	82	I	M31
8	I	CD2	33	I	D02	58	I	D25	83	I	XC0
9	I	CD3	34	I	D03	59	I	D26	84	I	XC1
10	I	CD4	35	I	D04	60	I	D27	85	I	XC2
11	I	CD5	36	I	D05	61	I	D28	86	I	XC3
12	I	CD6	37	I	D06	62	I	D29	87	I	XC4
13	I	CD7	38	I	D07	63	I	D30	88	I	YC0
14	O	Q1	39	I	D10	64	O	Q5	89	I	YC1
15	-	GND	40	-	GND	65	-	GND	90	-	GND
16	O	Q2	41	I	CK	66	O	Q6	91	O	Q8
17	I	CD8	42	-	NC	67	I	D33	92	I	YC2
18	I	CD9	43	I	D11	68	I	D34	93	I	YC3
19	I	CD10	44	I	D12	69	I	D35	94	I	YC4
20	I	CD11	45	I	D13	70	I	D36	95	I	XC
21	I	CD12	46	I	D14	71	I	D37	96	I	YC
22	I	CD13	47	I	D15	72	I	M00	97	I	PC
23	I	CD14	48	I	D16	73	I	M01	98	I	A0
24	I	CD15	49	I	D17	74	I	M10	99	I	A1
25	I	T0	50	I	D20	75	I	M11	100	I	A2



## INPUT

A0-A2 : REGISTER SELECT ADDRESS  
 CD0-CD15 : WRITE DATA TO REGISTER  
 CK : SYSTEM CLOCK  
 D00-D07 : IMAGE DATA (X:EVEN, Y:EVEN)  
 D10-D17 : IMAGE DATA (X:ODD, Y:EVEN)  
 D20-D27 : IMAGE DATA (X:EVEN, Y:ODD)  
 D30-D37 : IMAGE DATA (X:ODD, Y:ODD)  
 LH8 : REGISTER ASSIGN ADDRESS CHANGE  
 M00,M01 : CONTROL BIT (X:EVEN, Y:EVEN)  
 M10,M11 : CONTROL BIT (X:ODD, Y:EVEN)  
 M20,M21 : CONTROL BIT (X:EVEN, Y:ODD)  
 M30,M31 : CONTROL BIT (X:ODD, Y:ODD)  
 T0-T2 : OPERATE MODE SELECT  
 WE : WRITE ENABLE FOR REGISTER  
 XC0-XC4 : X DIRECTION INTERPOLATION DATA  
 YC0-YC4 : Y DIRECTION INTERPOLATION DATA

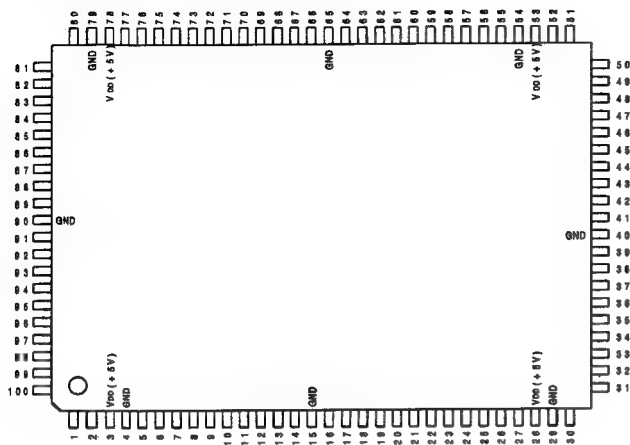
## OUTPUT

Q0-Q8 : RESULT DATA





CXD8266Q (SONY)

C-MOS MEMORY ADDRESS BUS CONTROL  
- TOP VIEW -

(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	MA001	28	O	MA008	51	O	MA009	78	O	MA014
2	O	MA002	27	O	MA007	52	O	MA010	77	O	MA015
3	-	VDD	26	-	VDD	53	-	VDD	79	-	VDD
4	-	GND	25	-	GND	54	-	GND	78	-	GND
5	O	MA100	30	O	MA106	55	O	MA108	80	O	MA113
6	O	MA101	31	O	MA108	56	O	MA109	81	O	MA114
7	O	MA102	32	O	MA107	57	O	MA110	82	O	MA115
8	I	PA00	33	I	PA12	58	I	CA08	83	I	WA05
9	I	PA01	34	I	PA13	59	I	CA09	84	I	WA06
10	I	PA02	35	I	PA14	60	I	CA10	85	I	WA07
11	I	PA03	36	I	PA15	61	I	CA11	86	I	WA08
12	I	PA04	37	I	PA16	62	I	CA12	87	I	WA09
13	O	MA003	38	I	CA00	63	O	MA011	88	I	WA06
14	O	MA004	39	I	CA01	64	O	MA012	89	I	WA09
15	-	GND	40	-	GND	65	-	GND	90	-	GND
16	O	MA103	41	I	CK	66	O	MA111	91	I	RENB
17	O	MA104	42	I	SEL0	67	O	MA112	92	I	SEL1
18	I	PA05	43	I	WENB	68	I	CA13	93	I	WA10
19	I	PA06	44	I	CA02	69	I	CA14	94	I	WA11
20	I	PA07	45	I	CA03	70	I	CA15	95	I	WA12
21	I	PA08	46	I	CA04	71	I	CA16	96	I	WA13
22	I	PA09	47	I	CA05	72	I	WA00	97	I	WA14
23	I	PA10	48	I	CA06	73	I	WA01	98	I	WA15
24	I	PA11	49	I	CA07	74	I	WA02	99	I	WA16
25	O	MA005	50	O	MA006	75	O	MA013	100	O	MA000

PIN No.	SIGNAL	PIN No.	SIGNAL	PIN No.	SIGNAL	PIN No.	SIGNAL
9	PA00	MA000	1	PA00	MA000	100	MA000
10	PA01	MA001	2	PA01	MA001	101	MA001
11	PA02	MA002	3	PA02	MA002	102	MA002
12	PA03	MA003	4	PA03	MA003	103	MA003
13	PA04	MA004	5	PA04	MA004	104	MA004
14	PA05	MA005	6	PA05	MA005	105	MA005
15	PA06	MA006	7	PA06	MA006	106	MA006
16	PA07	MA007	8	PA07	MA007	107	MA007
17	PA08	MA008	9	PA08	MA008	108	MA008
18	PA09	MA009	10	PA09	MA009	109	MA009
19	PA10	MA010	11	PA10	MA010	110	MA010
20	PA11	MA011	12	PA11	MA011	111	MA011
21	PA12	MA012	13	PA12	MA012	112	MA012
22	PA13	MA013	14	PA13	MA013	113	MA013
23	PA14	MA014	15	PA14	MA014	114	MA014
24	PA15	MA015	16	PA15	MA015	115	MA015
25	PA16	MA016	17	PA16	MA016	116	MA016
26	CA00	MA100	18	CA00	MA100	117	MA100
27	CA01	MA101	19	CA01	MA101	118	MA101
28	CA02	MA102	20	CA02	MA102	119	MA102
29	CA03	MA103	21	CA03	MA103	120	MA103
30	CA04	MA104	22	CA04	MA104	121	MA104
31	CA05	MA105	23	CA05	MA105	122	MA105
32	CA06	MA106	24	CA06	MA106	123	MA106
33	CA07	MA107	25	CA07	MA107	124	MA107
34	CA08	MA108	26	CA08	MA108	125	MA108
35	CA09	MA109	27	CA09	MA109	126	MA109
36	CA10	MA110	28	CA10	MA110	127	MA110
37	CA11	MA111	29	CA11	MA111	128	MA111
38	CA12	MA112	30	CA12	MA112	129	MA112
39	CA13	MA113	31	CA13	MA113	130	MA113
40	CA14	MA114	32	CA14	MA114	131	MA114
41	CA15	MA115	33	CA15	MA115	132	MA115
42	CA16	MA116	34	CA16	MA116	133	MA116
43	WA00	MA000	35	WA00	MA000	134	MA000
44	WA01	MA001	36	WA01	MA001	135	MA001
45	WA02	MA002	37	WA02	MA002	136	MA002
46	WA03	MA003	38	WA03	MA003	137	MA003
47	WA04	MA004	39	WA04	MA004	138	MA004
48	WA05	MA005	40	WA05	MA005	139	MA005
49	WA06	MA006	41	WA06	MA006	140	MA006
50	WA07	MA007	42	WA07	MA007	141	MA007
51	WA08	MA008	43	WA08	MA008	142	MA008
52	WA09	MA009	44	WA09	MA009	143	MA009
53	WA10	MA010	45	WA10	MA010	144	MA010
54	WA11	MA011	46	WA11	MA011	145	MA011
55	WA12	MA012	47	WA12	MA012	146	MA012
56	WA13	MA013	48	WA13	MA013	147	MA013
57	WA14	MA014	49	WA14	MA014	148	MA014
58	WA15	MA015	50	WA15	MA015	149	MA015
59	WA16	MA016	51	WA16	MA016	150	MA016

## INPUT

CA00-CA16 : READ ADDRESS FROM MEMORY  
 CK : SYSTEM CLOCK  
 PA00-PA16 : READ ADDRESS FROM MEMORY  
 RENB : LATCH ENABLE FOR READ SYSTEM  
 SEL0 : READ/WRITE CHANGE

	MA0	MA1
0	READ	WRITE
1	WRITE	READ

SEL1 : READ ADDRESS SELECT  
 (0:PA MODE, 1:CA MODE)  
 WA00-WA16 : WRITE ADDRESS TO MEMORY  
 WENB : LATCH ENABLE FOR WRITE SYSTEM

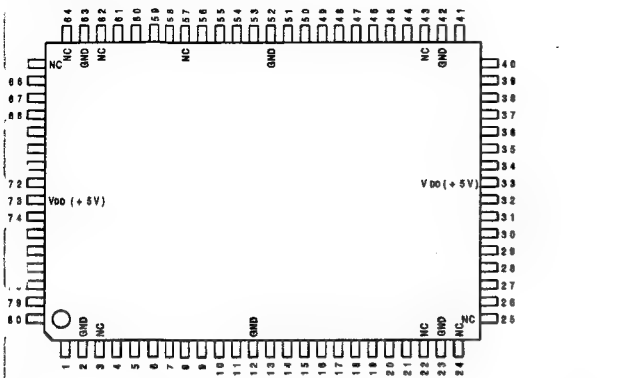
## OUTPUT

MA000-MA015 : READ/WRITE ADDRESS  
 MA100-MA115 : READ/WRITE ADDRESS

CONTROL		OUTPUT	
SEL0	SEL1	MA0	MA1
0	0	PA OUT	WA OUT
0	1	CA OUT	WA OUT
1	0	WA OUT	PA OUT
1	1	WA OUT	CA OUT



## D8267Q (SONY)

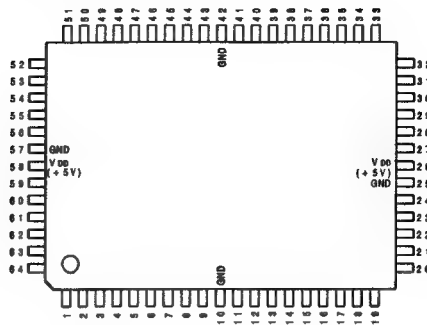
CMOS MEMORY DATA BUS CONTROL  
- TOP VIEW -

(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	SD00	21	O	SD08	41	O	SD16	61	O	SD24
2	-	GND	22	-	NC	42	-	GND	62	-	NC
3	-	NC	23	-	GND	43	-	NC	63	-	GND
4	O	SD01	24	-	NC	44	O	SD11	64	-	NC
5	I/O	RD00	25	-	NC	45	I/O	RD09	65	-	NC
6	I/O	RD01	26	O	SD07	46	I/O	RD01	66	O	SD17
7	I/O	RD02	27	I/O	SD05	47	I/O	RD02	67	I/O	RD05
8	I/O	RD03	28	I/O	SD06	48	I/O	RD03	68	I/O	RD06
9	I/O	RD04	29	I/O	SD07	49	I/O	RD04	69	I/O	RD07
10	O	SD02	30	I	WD0	50	O	SD12	70	I	WD4
11	O	SD03	31	I	WD1	51	O	SD13	71	I	WD5
12	-	GND	32	I	WD2	52	-	GND	72	I	WD6
13	O	SD04	33	-	VDD	53	O	SD14	73	-	VDD
14	O	SD05	34	I	WD3	54	O	SD15	74	I	WD7
15	I/O	RD05	35	I	RCK	55	I/O	RD05	75	I	WCK
16	I/O	RD06	36	I	REN	56	I/O	RD06	76	I	WEN
17	I	MODE	37	I	SEL0	57	-	NC	77	I	SEL1
18	I/O	RD07	38	I/O	RD10	58	I/O	RD10	78	I/O	RD09
19	I/O	RD08	39	I/O	RD11	59	I/O	RD11	79	I/O	RD01
20	I/O	RD09	40	I/O	RD12	60	I/O	RD12	80	I/O	RD02

RD00	SD00	1	INPUT
RD01	SD01	4	MODE : DATA BUS CONTROLLER/SELECTOR CHANGE
RD02	SD02	1.1	RCK : CLOCK FOR READ SYSTEM
RD03	SD03	1.3	REN : LATCH ENABLE FOR SD00-SD07, SD10-SD17
RD04	SD04	1.4	SEL0 : READ/WRITE CHANGE (DATA BUS CONTROLLER MODE)
RD05	SD05	2.1	
RD06	SD06	2.6	
RD07	SD07	2.8	
RD08	SD08	4.1	
RD09	SD09	4.4	
RD10	SD10	5.0	
RD11	SD11	5.1	
RD12	SD12	5.3	
RD13	SD13	5.4	
RD14	SD14	5.6	
RD15	SD15	5.7	
RD16	SD16	5.8	
RD17	SD17	5.9	
RD18	SD18	6.0	
RD19	SD19	6.1	
RD20	SD20	6.2	
RD21	SD21	6.3	
RD22	SD22	6.4	
RD23	SD23	6.5	
RD24	SD24	6.6	
RD25	SD25	6.7	
RD26	SD26	6.8	
RD27	SD27	6.9	
RD28	SD28	7.0	
RD29	SD29	7.1	
RD30	SD30	7.2	
RD31	SD31	7.3	
RD32	SD32	7.4	
RD33	SD33	7.5	
RD34	SD34	7.6	
RD35	SD35	7.7	
RD36	SD36	7.8	
RD37	SD37	7.9	

## CXD8276Q (SONY)

CMOS LINEAR INTERPOLATION  
- TOP VIEW -

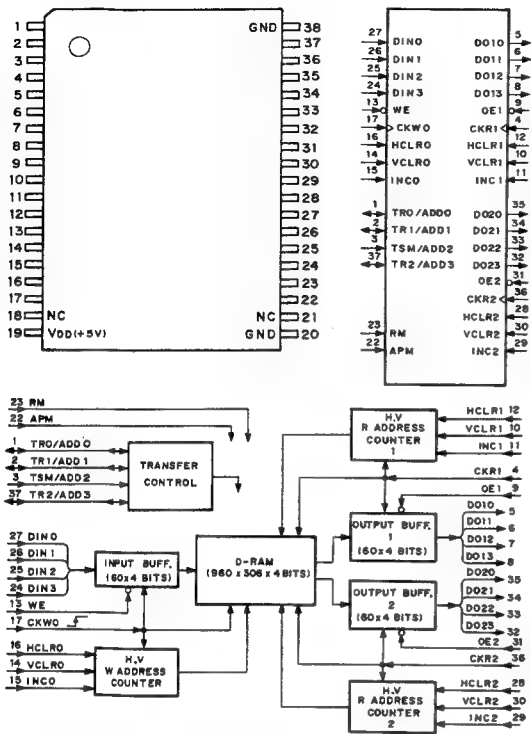
(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	D8	17	I	B4	33	I	RAS	49	I	C2
2	I	D7	18	I	B5	34	I	RBS	50	I	C3
3	I	A9	19	I	B6	35	I	RAW	51	I	C4
4	I	A1	20	I	B7	36	I	RBW	52	I	C5
5	I	A2	21	O	R0	37	I	RND	53	I	C6
6	I	A3	22	O	R1	38	O	Q0	54	I	C7
7	I	A4	23	O	R2	39	O	Q1	55	I	C8
8	I	A5	24	O	R3	40	O	Q2	56	I	CK
9	I	CLR	25	-	GND	41	O	Q3	57	-	GND
10	-	GND	26	-	VDD	42	-	GND	58	-	VDD
11	I	A6	27	O	R4	43	O	Q4	59	I	D0
12	I	A7	28	O	R5	44	O	Q5	60	I	D1
13	I	B0	29	O	R6	45	O	Q6	61	I	D2
14	I	B1	30	O	R7	46	O	Q7	62	I	D3
15	I	B2	31	I	MOD	47	I	C0	63	I	D4
16	I	B3	32	I	MSQ	48	I	C1	64	I	D5

59	D8	Q0	INPUT
60	D1	Q1	A0-A7 : A DATA PORT
61	D2	Q2	B0-B7 : B DATA PORT
62	D3	Q3	C0-C8 : C DATA PORT
63	D4	Q4	CK : CLOCK
64	D5	Q5	CLR : CLEAR
65	D6	Q6	D0-D7 : INTERNAL REGISTER PORT
66	D7	Q7	MOD : MODE SELECT
67	A0	R0	(0:8-BIT MODE, 1:8-BIT MODE)
68	A1	R1	MSQ : RANDOM NUMBER GENERATE
69	A2	R2	RAS : REG A SELECT
70	A3	R3	RAW : WRITE A REGISTER
71	A4	R4	RBS : REG B SELECT
72	A5	R5	RBW : WRITE B REGISTER
73	A6	R6	RND : INTEGER DATA OUT CANCEL
74	A7	R7	
75	B0		
76	B1		
77	B2		
78	B3		
79	B4		
80	B5		
81	B6		
82	B7		
83	C0	RAS	3.3
84	C1	RAW	3.4
85	C2	RBS	3.5
86	C3	RBW	3.6
87	C4	RND	3.7
88	C5	CLR	3.8
89	C6	MOD	3.9
90	C7	MSQ	4.0
91	C8		



## CXK1206AM (SONY) FLAT PACKAGE

C-MOS VIDEO FIELD MEMORY (960-COLUMNx306-ROWx4-BIT)  
- TOP VIEW -

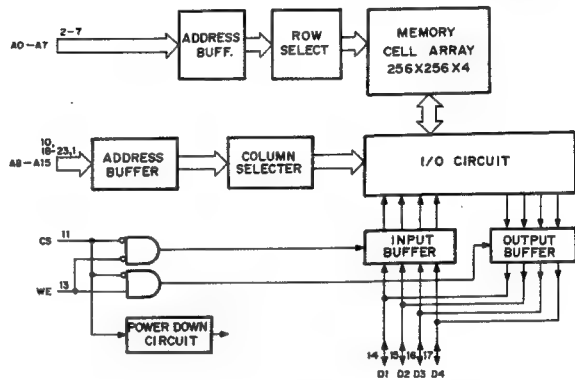
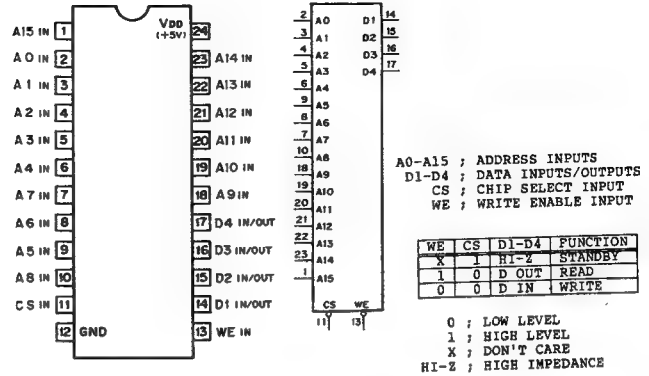
PIN	SIGNAL	DESCRIPTION
1	TRO/ADD0	W PORT 0 TRANSFER SYNC I/O, ADDRESS 0 INPUT
2	TR1/ADD1	R PORT 1 TRANSFER SYNC I/O, ADDRESS 1 INPUT
3	TSM/ADD2	TRANSFER SYNCHRONOUS MODE, ADDRESS 2 INPUT
4	CKR1	R PORT 1 SHIFT SIGNAL INPUT
5	D010	R PORT 1 DATA 0 OUTPUT
6	D011	R PORT 1 DATA 1 OUTPUT
7	D012	R PORT 1 DATA 2 OUTPUT
8	D013	R PORT 1 DATA 3 OUTPUT
9	OE1	R PORT 1 OUTPUT ENABLE INPUT
10	VCLR1	R PORT 1 VERTICAL CLEAR INPUT
11	INC1	R PORT 1 LINE INCREMENT INPUT
12	HCLR1	R PORT 1 HORIZONTAL CLEAR INPUT
13	WE	W PORT 0 WRITE ENABLE INPUT
14	VCLR0	W PORT 0 VERTICAL CLEAR INPUT
15	INCO	W PORT 0 LINE INCREMENT INPUT
16	HCLR0	W PORT 0 HORIZONTAL CLEAR INPUT
17	CKW0	W PORT 0 SHIFT SIGNAL INPUT
18	NC	(no connection)
19	VDD	+5V INPUT
20	GND	GND
21	NC	(no connection)
22	APM	ADDRESS PRESET MODE INPUT
23	RM	RECURSIVE MODE ENABLE INPUT
24	DIN3	W PORT 0 DATA 3 INPUT
25	DIN2	W PORT 0 DATA 2 INPUT
26	DIN1	W PORT 0 DATA 1 INPUT
27	DINO	W PORT 0 DATA 0 INPUT
28	HCLR2	R PORT 2 HORIZONTAL CLEAR INPUT
29	INC2	R PORT 2 LINE INCREMENT INPUT
30	VCLR2	R PORT 2 VERTICAL CLEAR INPUT
31	OE2	R PORT 2 OUTPUT ENABLE INPUT
32	DO23	R PORT 2 DATA 3 OUTPUT
33	DO22	R PORT 2 DATA 2 OUTPUT
34	DO21	R PORT 2 DATA 1 OUTPUT
35	DO20	R PORT 2 DATA 0 OUTPUT
36	CKR2	R PORT 2 SHIFT SIGNAL INPUT
37	TR2/ADD3	R PORT 2 TRANSFER SYNC I/O, ADDRESS 3 INPUT
38	GND	GND

## MODE SELECTION

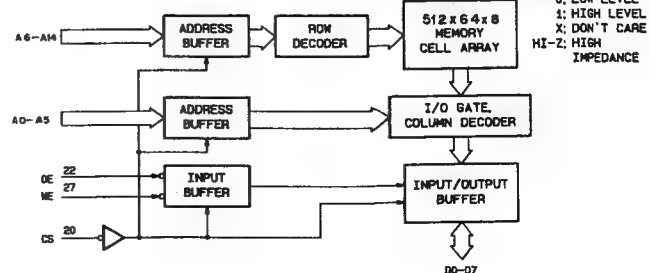
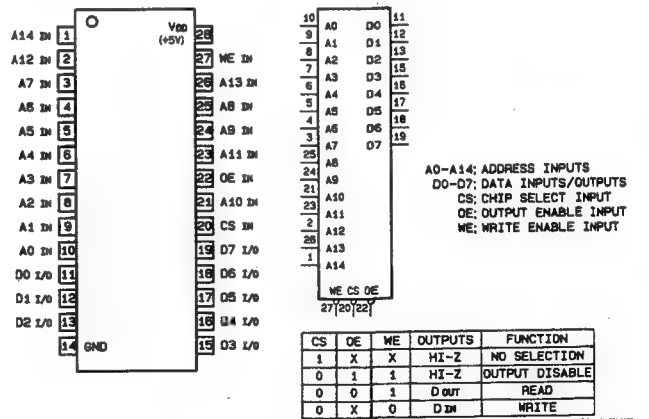
CONTROL INPUTS		TS, TR/ADD		MODE
RM	APM	TS	TR/ADD	
0	0	0	OUT-PUT	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
0	0	1	IN-PUT	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT
0	1	-	-	NON RECURSIVE MODE, ADDRESS PRESET MODE
1	0	0	OUT-PUT	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
1	0	1	IN-PUT	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT

0: LOW LEVEL 1: HIGH LEVEL

## CXK54256P-35 (SONY) (ACCESS TIME = 35ns)

C-MOS 256K (65536x4)-BIT STATIC RAM  
- TOP VIEW -

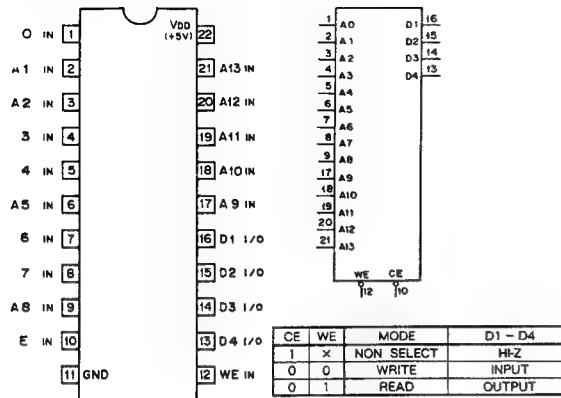
## CXK58258AP-25 (SONY)

C-MOS 256K (32768x8)-BIT STATIC RAM  
- TOP VIEW -



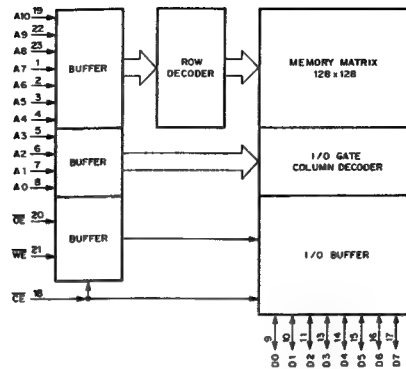
## XK5464AP-35 (SONY)

C-MOS 64K (16,384x4)-BIT STATIC RAM  
- TOP VIEW -



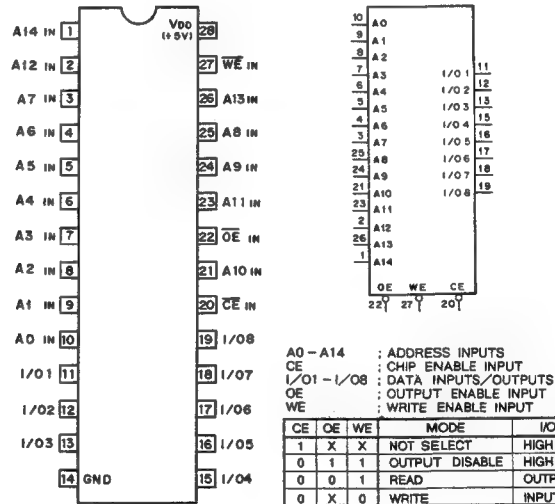
0 : LOW LEVEL  
1 : HIGH LEVEL  
X : DON'T CARE

A0 - A13 : ADDRESS INPUTS  
CE : CHIP ENABLE INPUT  
D1 - D4 : DATA INPUTS/OUTPUTS  
E : WRITE ENABLE INPUT



## CXK58257AM-12LL (SONY) FLAT PACKAGE

C-MOS 256K (32768x8)-BIT STATIC RAM  
- TOP VIEW -

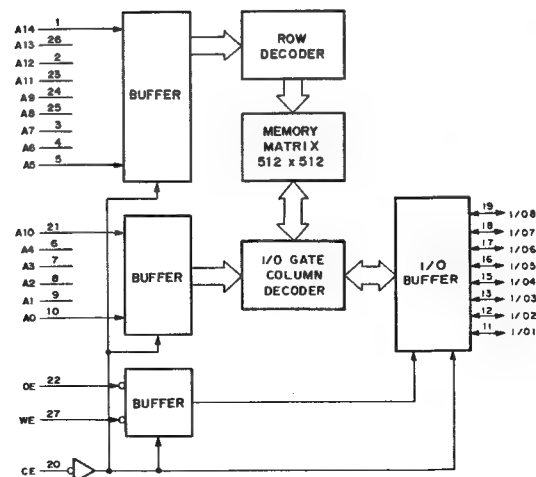
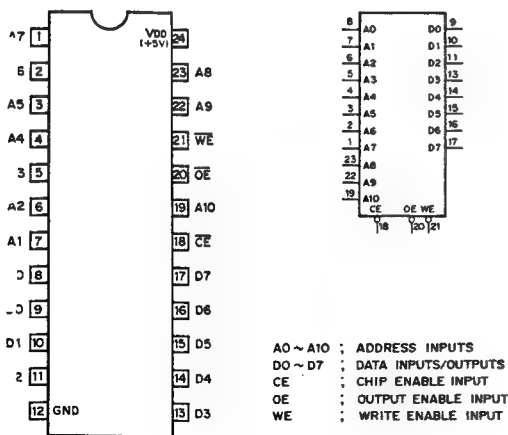


A0 - A14 : ADDRESS INPUTS  
CE : CHIP ENABLE INPUT  
I/O1 - I/O8 : DATA INPUTS/OUTPUTS  
OE : OUTPUT ENABLE INPUT  
WE : WRITE ENABLE INPUT

0 : LOW LEVEL  
1 : HIGH LEVEL  
X : DON'T CARE

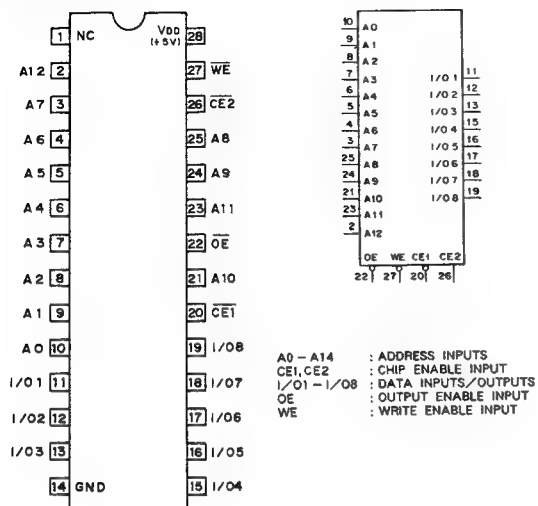
## XK5814P-35 (SONY)

MOS 16K (2Kx8) STATIC RAM  
TOP VIEW -



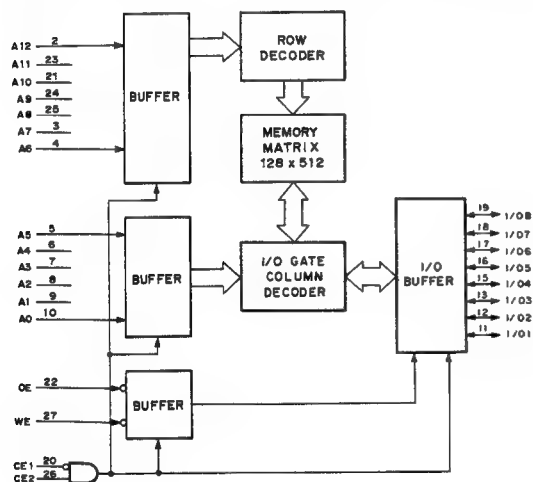


## CXK5863P-25 (SONY)

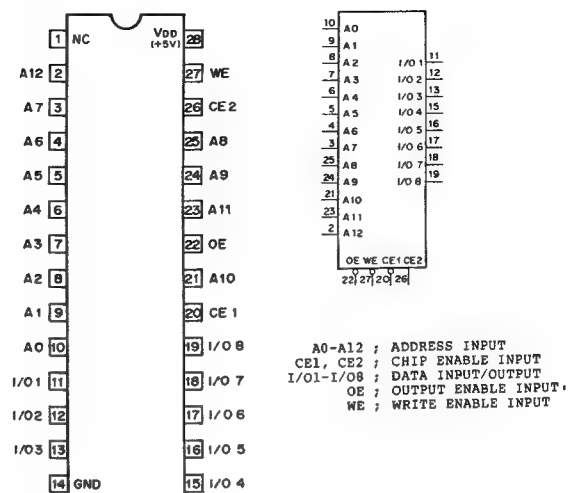
C-MOS 8192-WORDx8-BIT HIGH SPEED STATIC RAM  
- TOP VIEW -

CE1	CE2	OE	WE	MODE	I/O TERMINAL
1	X	X	X	NOT SELECT	HIGH IMPEDANCE
X	0	X	X	NOT SELECT	HIGH IMPEDANCE
0	1	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	1	0	1	READ	OUTPUT DATA
0	1	X	0	WRITE	INPUT DATA

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

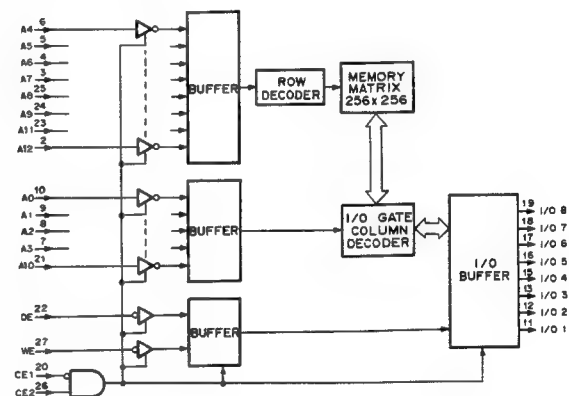


## CXK5864BSP-70L (SONY)

C-MOS 64K (8192x8)-BIT STATIC RAM  
- TOP VIEW -

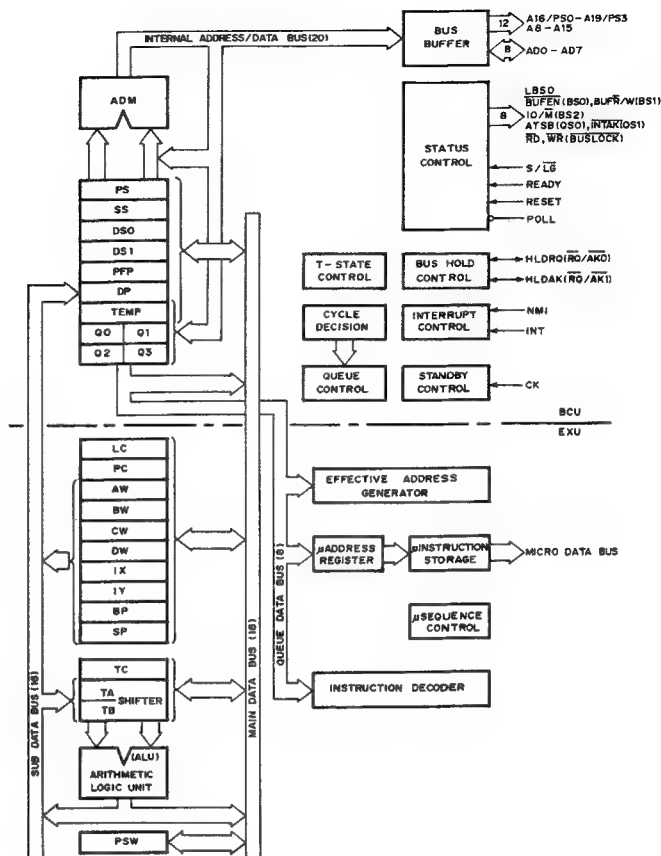
CE1	CE2	OE	WE	MODE	I/O TERMINAL
1	X	X	X	NOT SELECT	HIGH IMPEDANCE
X	0	X	X	NOT SELECT	HIGH IMPEDANCE
0	1	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	1	0	1	READ	OUTPUT DATA
0	1	X	0	WRITE	INPUT DATA

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE





Q70108P-8 (SONY)  
CMOS 8-BIT MICROPROCESSOR  
- TOP VIEW -



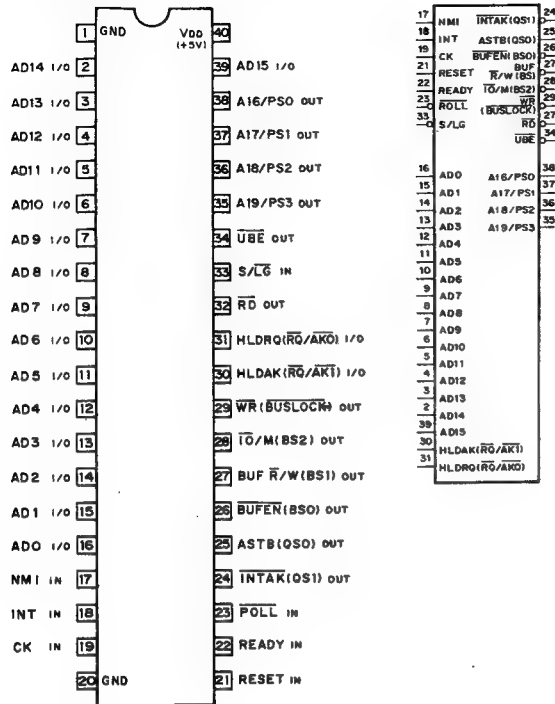
```

A8-A15; ADDRESS BUS OUTPUTS
A00-A07; ADDRESS/DATA BUS INPUTS/OUTPUTS
NMI; NON-MASKABLE INTERRUPT INPUT
INT; MASKABLE INTERRUPT INPUT
CK; CLOCK INPUT
INTAK; INTERRUPT ACKNOWLEDGE OUTPUT
ASTB; ADDRESS STROBE OUTPUT
BUFEN; BUFFER ENABLE OUTPUT
BUFR/W; BUFFER READ/WRITE OUTPUT
IO/M; IO/MEMORY OUTPUT
WR; WRITE STROBE OUTPUT
HLDK; HOLD ACKNOWLEDGE OUTPUT
HLDKQ; HOLD REQUEST INPUT
RD; READ STROBE OUTPUT
S/LG; SMALL/LARGE INPUT
LB80; LATCHED BUS STATUS 0 OUTPUT
-AIS/PS3; ADDRESS BUS/PROCESSOR STATUS
      OUTPUTS
QSO,1; QUEUE STATUS OUTPUTS
BS0-BS2; BUS STATUS OUTPUTS
BUSLOCK; BUS LOCK OUTPUT
IQ/AKO,1; HOLD REQUEST/ACKNOWLEDGE
      INPUTS/OUTPUTS

```

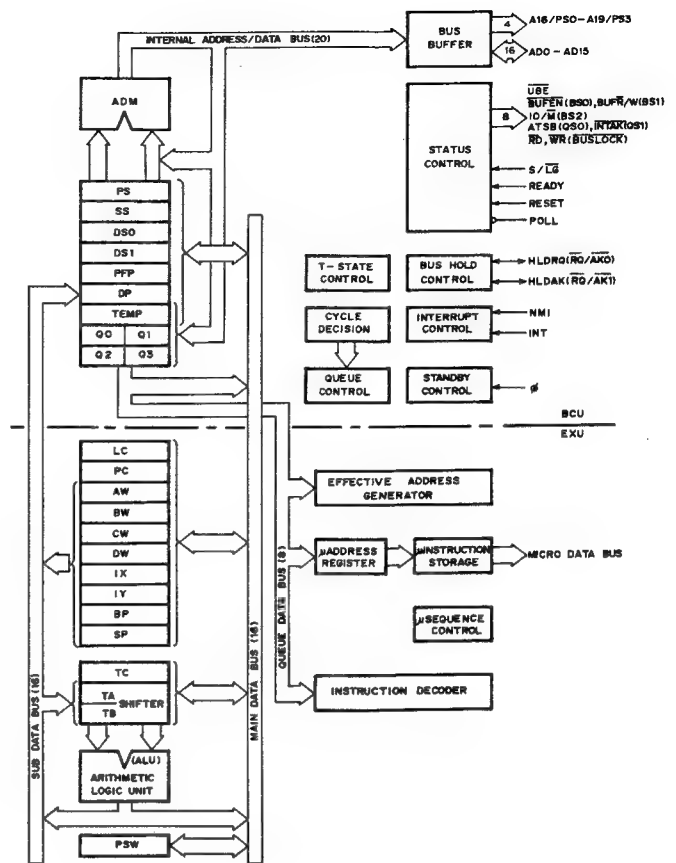


CXQ70116P-10 (SONY)

C-MOS 16-BIT MICROPROCESSOR  
- TOP VIEW -

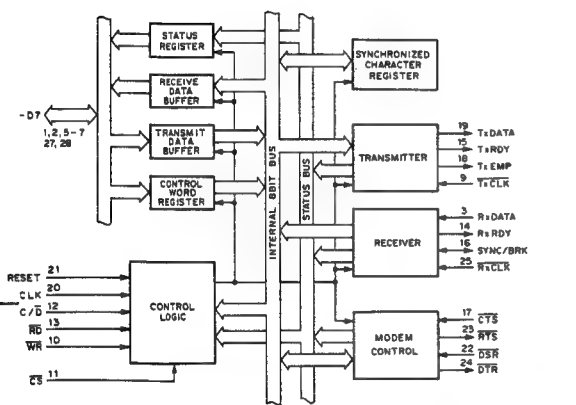
AD15-AD0 ; ADDRESS/DATA BUS  
 NMI ; NON-MASKABLE INTERRUPT  
 INT ; MASKABLE INTERRUPT  
 CK ; CLOCK  
 INTAK ; INTERRUPT ACKNOWLEDGE  
 ASTB ; ADDRESS STROBE  
 BUFEN ; BUFFER ENABLE  
 BUF R/W ; BUFFER READ/WRITE  
 IO/M ; IO MEMORY  
 WR ; WRITE STROBE  
 HLDK ; HOLD ACKNOWLEDGE  
 HLDK ; HOLD REQUEST  
 RD ; READ STROBE  
 S/LG ; SMALL/LARGE  
 UBE ; UPPER BYTE ENABLE  
 A19/PS3-A16/PS0 ; ADDRESS BUS/PROCESSOR STATUS  
 QS1, 0 ; QUEUE STATUS  
 BS2-BS0 ; BUS STATUS  
 BUSLOCK ; BUS LOCK  
 RQ/AK1, 0 ; HOLD REQUEST/ACKNOWLEDGE

PIN No.	S/LG=HIGH LEVEL	FUNCTION	S/LG=LOW LEVEL
24	INTAK	QS1	
25	ASTB	QS0	
26	BUFEN	BS0	
27	BUF R/W	BS1	
28	IO/M	BS2	
29	WR	BUSLOCK	
30	HLDK	RQ/AK1	
31	HLDK	RQ/AK0	



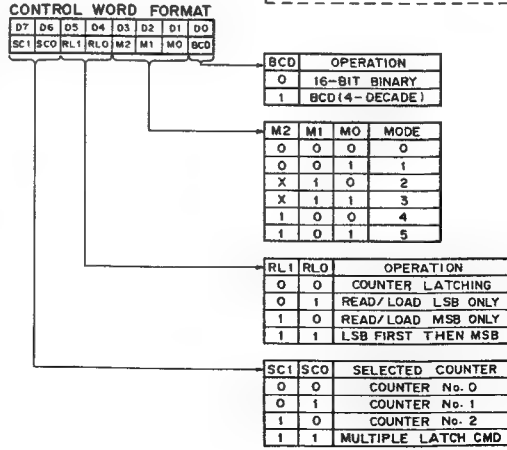
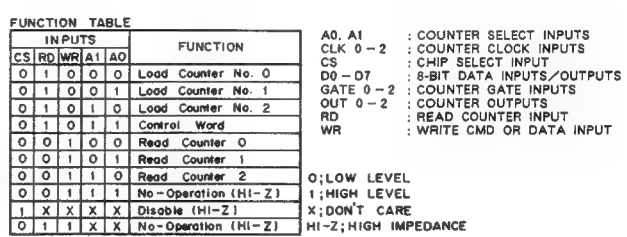


<Q71051P (SONY)  
C-MOS SERIAL CONTROL UNIT  
- TOP VIEW -



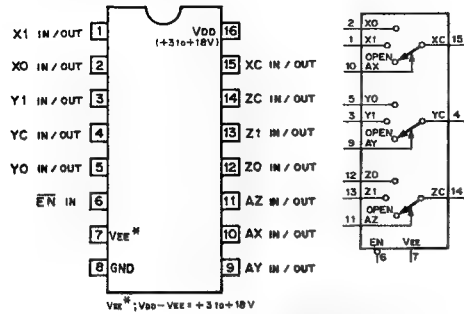
1:HIGH LEVEL  
0:LOW LEVEL  
X:DON'T CARE

C-MOS PROGRAMMABLE TIMER COUNTER  
- TOP VIEW -





HD14053BFP (HITACHI) FLAT PACKAGE  
C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS  
- TOP VIEW -

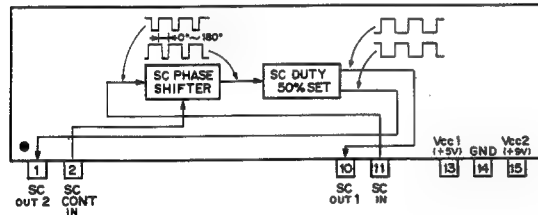


V<sub>EE</sub> = V<sub>DD</sub> - V<sub>EE</sub> = +3.0 to +18V

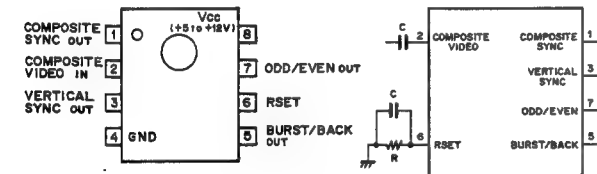
CONT. INPUTS	ON	CHANNEL
EN	A (X,Y,Z)	
0	0	0
0	1	1
1	X	OPEN

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE.

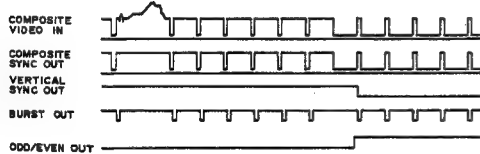
IB-38 (AGC)  
SC PHASE SHIFTER  
- REAR VIEW -



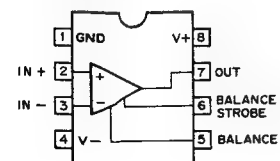
LM1881M (NS) FLAT PACKAGE  
VIDEO SYNC SEPARATOR  
- TOP VIEW -



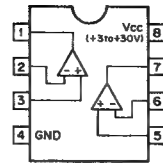
TIMING CHART



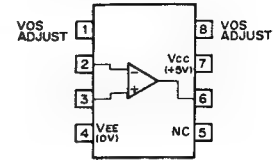
LM311PS (TI) FLAT PACKAGE  
VOLTAGE COMPARATOR WITH STROBE  
- TOP VIEW -



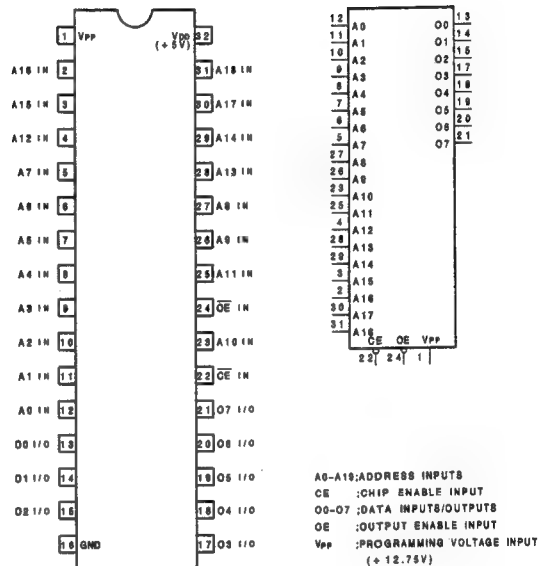
LM358PS (TI) FLAT PACKAGE  
DUAL OPERATIONAL AMPLIFIERS  
- TOP VIEW -



LM6361M (NEC)  
HIGH SPEED OPERATIONAL AMPLIFIER  
- TOP VIEW -



M27C4001-12F1 (SGS)  
C-MOS 4M-BIT UV EPROM  
- TOP VIEW -

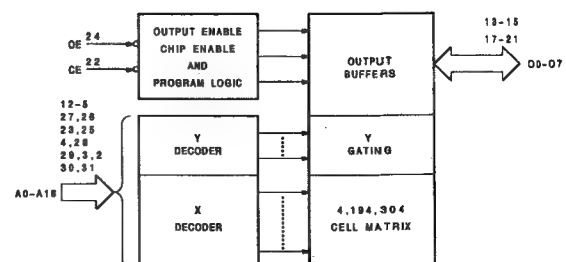


A0-A18: ADDRESS INPUTS  
CE : CHIP ENABLE INPUT  
O0-O7 : DATA INPUTS/OUTPUTS  
OE : OUTPUT ENABLE INPUT  
Vpp : PROGRAMMING VOLTAGE INPUT  
(+12.75V)

PINS						MODE
CE	OE	A0	Vpp	O0-O7	D OUT	READ
0	0	x	x	D OUT	HI-Z	OUTPUT DISABLE
0	1	x	x	HI-Z	HI-Z	STAND BY
0	1	x	Vpp	D IN	PROGRAM	
1	0	x	Vpp	D OUT	PROGRAM VERIFY	
1	1	x	Vpp	HI-Z	PROGRAM INHIBIT	
0	0	+12V	Vpp	CODE	ELECTRONIC SIGNATURE	

0 : LOW LEVEL  
1 : HIGH LEVEL  
X : DON'T CARE  
HI-Z: HIGH IMPEDANCE

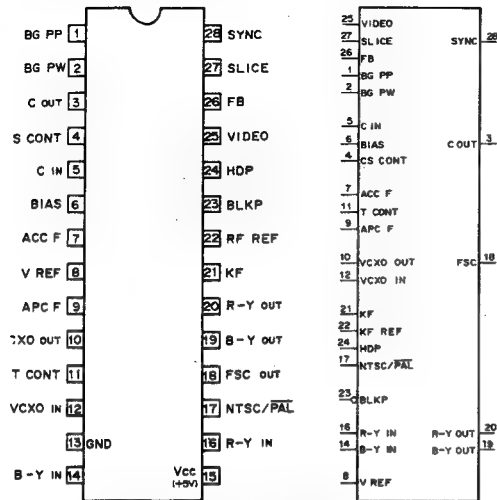
IDENTIFIER	A0	CODE DATA								
		O7	O6	O5	O4	O3	O2	O1	O0	
MANUFACTURER CODE	0	0	0	1	0	0	0	0	0	20
DEVICE CODE	1	0	1	0	0	0	0	0	1	41



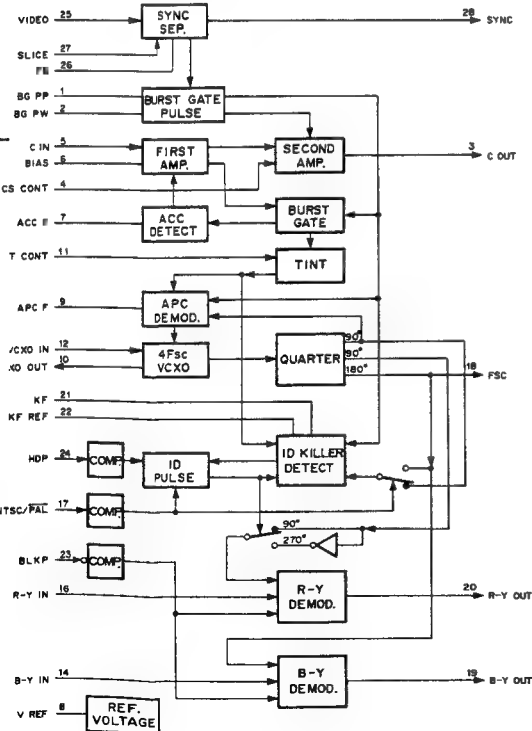


# 51271FP (MITSUBISHI) FLAT PACKAGE

..TSC, PAL CHROMA DECODER  
- TOP VIEW -

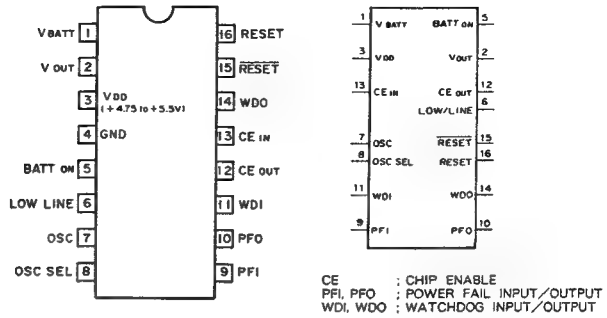


ACC F ; AUTOMATIC COLOR CONTROL FILTER  
APC F ; AUTOMATIC PHASE CONTROL FILTER  
BG PP ; BURST GATE PULSE POSITION  
BG PW ; BURST GATE PULSE WIDTH  
BIAS ; CHROMA INPUT BIAS CAPACITY  
BLKP ; BLANKING PULSE INPUT  
B-Y ; B-Y SIGNAL INPUT/OUTPUT  
C ; CHROMA SIGNAL INPUT/OUTPUT  
CS CONT ; COLOR SATURATION CONTROL  
FB ; FEEDBACK CAPACITY OF SYNC SEPARATION  
FSC ; SUB-CARRIER OUTPUT (180 DEGREES)  
HDP ; HORIZONTAL DRIVE PULSE INPUT  
KF ; KILLER FILTER CAPACITY  
KF REF ; KILLER REFERENCE FILTER CAPACITY  
NTSC/PAL ; PROCESS SELECT  
R-Y ; R-Y SIGNAL INPUT/OUTPUT  
SLICE ; SLICE LEVEL INPUT OF SYNC SEPARATION  
SYNC ; SEPARATION SYNC SIGNAL OUTPUT  
T CONT ; TINT CONTROL  
VCXO ; VARIABLE CAPACITOR AND CRYSTAL OSCILLATOR  
VIDEO ; VIDEO INPUT FOR SYNC SEPARATION  
V REF ; REFERENCE VOLTAGE

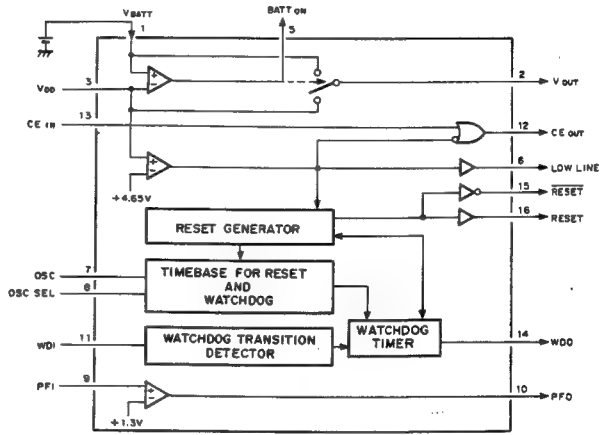


# MAX691CPE (MAXIM)

C-MOS MICROPROCESSOR SUPERVISORY CIRCUITS  
- TOP VIEW -

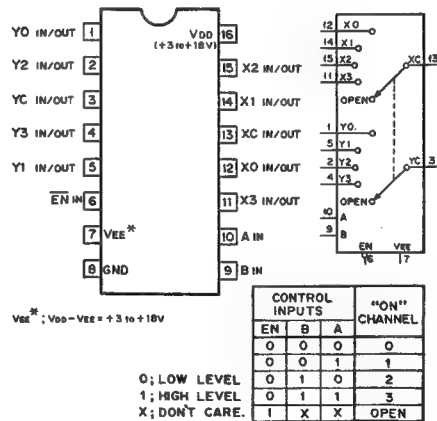


CE : CHIP ENABLE  
PFI, PFO : POWER FAIL INPUT/OUTPUT  
WDI, WDO : WATCHDOG INPUT/OUTPUT



# MC14052BF (MOTOROLA) FLAT PACKAGE

C-MOS DUAL 4-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS  
- TOP VIEW -



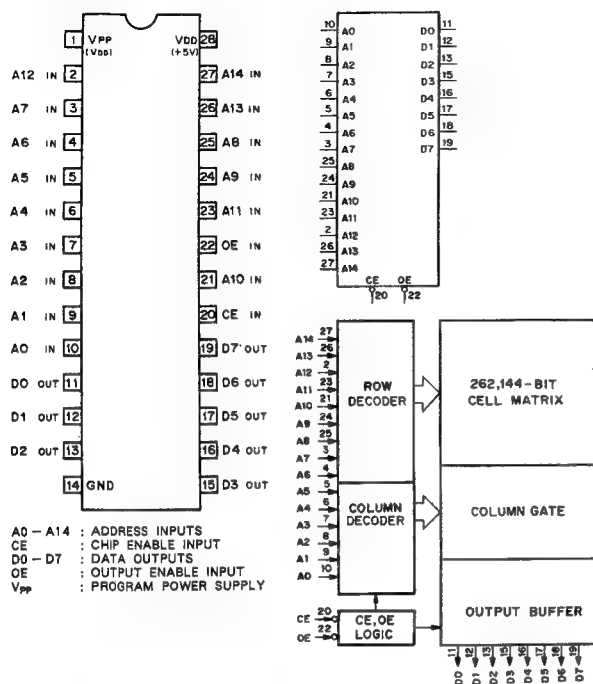
VEE\* : VDD - VEE + 3 to +18V

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE.

CONTROL INPUTS			"ON" CHANNEL
EN	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	OPEN



## MBM27C256A-25CZ-X (FUJITSU)

C-MOS 256K (32Kx8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUTS  
- TOP VIEW -

Pin	CE	OE	Vpp	Vpp	Dn	FUNCTION
An	0	0	+5V	+5V	Dout	READ
An	0	1	+5V	+5V	Hi-Z	OUTPUT DISABLE
X	1	X	+5V	+5V	Hi-Z	STANDBY
An	0	1	+6V	+12.5V	Din	PGM
An	1	0	+6V	+12.5V	Dout	PGM-VERIFY(1)
An	0	0	+6V	+12.5V	Dout	PGM-VERIFY(2)
X	1	1	+6V	+12.5V	Hi-Z	PGM INH
AO	0	0	+5V	+5V	DEVICE CODE	ELECTRONIC SIGNATURE*

O: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE  
Hi-Z: HIGH IMPEDANCE

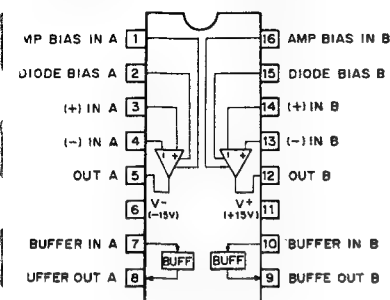
\* SEE FOLLOWING DESCRIPTION.

ELECTRONIC SIGNATURE FOR ROM WRITER  
ADDRESS SETTINGS IN READ MODE

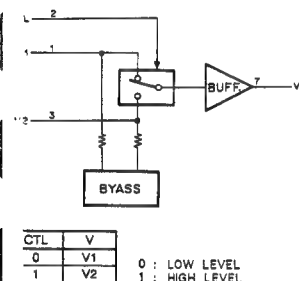
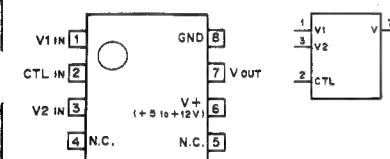
	CODE DATA									
	A0	D7	D6	D5	D4	D3	D2	D1	D0	
MAKER CODE	0	0	0	0	0	0	1	0	0	04H
DEVICE CODE	1	0	1	1	0	0	0	1	0	62H



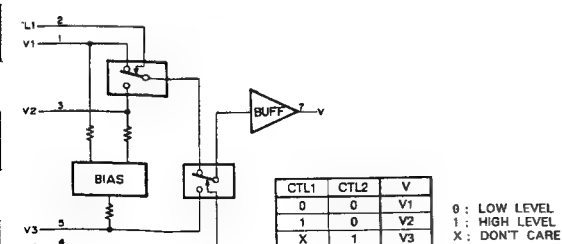
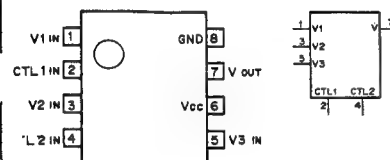
JM13700M (JRC) FLAT PACKAGE  
DUAL OPERATIONAL TRANSCONDUCTANCE AMPLIFIER  
- TOP VIEW -



JM2233BM (JRC) FLAT PACKAGE  
2-INPUT VIDEO SIGNAL SWITCH  
- TOP VIEW -

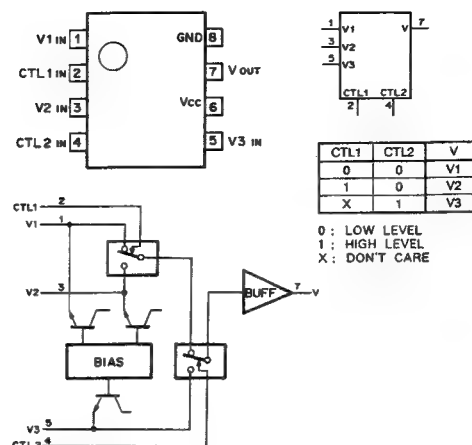


JM2234M (JRC) FLAT PACKAGE  
JM2245M (JRC) FLAT PACKAGE  
3-INPUT VIDEO SIGNAL SWITCH  
- TOP VIEW -



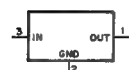
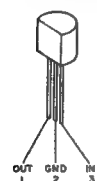
TYPE	GAIN	Vcc
NJM2234M	0 dB	+5 to +12V
NJM2245M	+6 dB	+8.5 to +13V

NJM2235M (JRC) FLAT PACKAGE  
NJM2246M (JRC) FLAT PACKAGE  
3-INPUT VIDEO SIGNAL SWITCH  
- TOP VIEW -

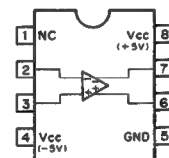


TYPE	GAIN	Vcc
NJM2235M	0 dB	+5 to +15V
NJM2246M	+6 dB	+4.75 to +13V

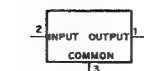
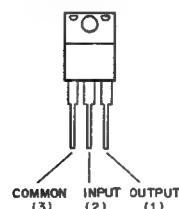
NJM78L05A (JRC) +5V (100mA)  
NJM78L09A (JRC) +9V (100mA)  
POSITIVE VOLTAGE REGULATOR



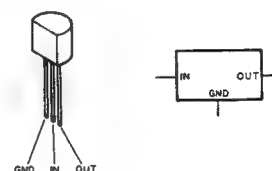
NJM360M (JRC) FLAT PACKAGE  
HIGH SPEED VOLTAGE COMPARATOR  
(TTL OUTPUT)  
- TOP VIEW -



NJM7905FA (JRC) -5V  
NJM7909FA (JRC) -9V  
NEGATIVE VOLTAGE REGULATOR  
- FRONT VIEW -

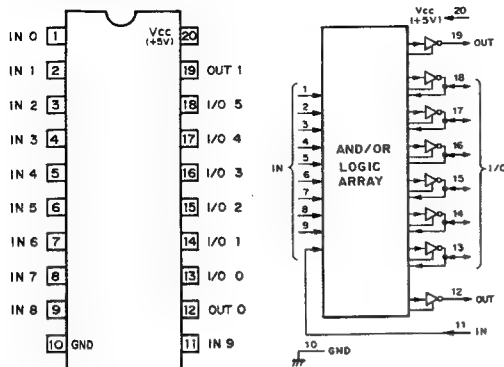


NJM79L09A (JRC) -9V  
NEGATIVE VOLTAGE REGULATOR (100mA)





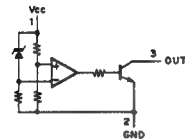
PAL16L8BCN (AMD/MONOLITHIC MEMORIES)  
PROGRAMMABLE LOGIC DEVICE  
- TOP VIEW -



\* ABOVE DIAGRAM SHOWS CONDITIONS BEFORE PROGRAMMING.

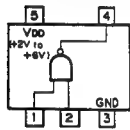
PST523C (MITSUMI) 4.5V  
SYSTEM RESETING DEVICE

(MITSUMI)



REF; REFERENCE VOLTAGE

SC7S00F (MOTOROLA) FLAT PACKAGE  
C-MOS 2-INPUT NAND GATE  
- TOP VIEW -

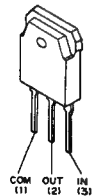


$Y = A \cdot B = \overline{A + B}$

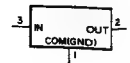
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL  
1; HIGH LEVEL

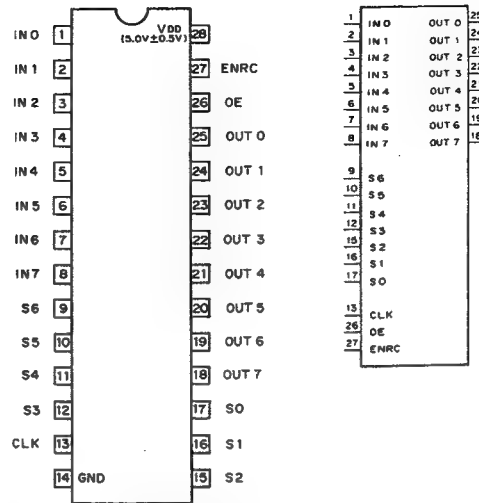
SI-3522V (SANKEN)  
POSITIVE VOLTAGE REGULATOR (2A)



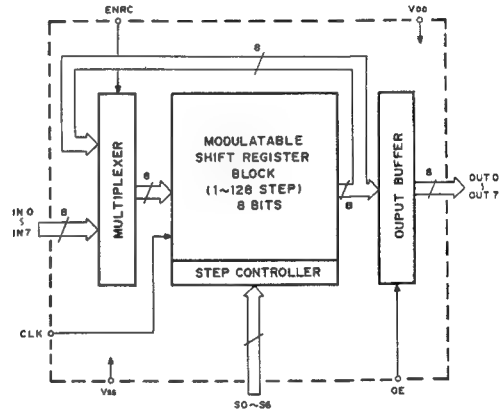
5V SI-3052V  
5.2V SI-3522V  
1.2V SI-3122V



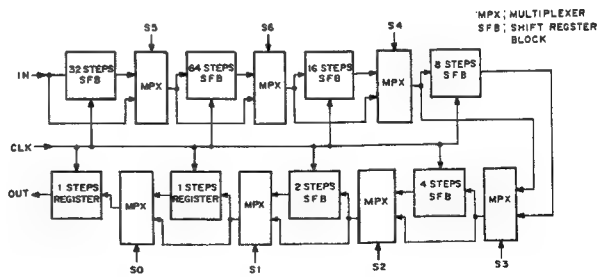
SM5828P (NPC)  
C-MOS 128 STEPS 8 BITS PROGRAMABLE SHIFT REGISTER  
- TOP VIEW -



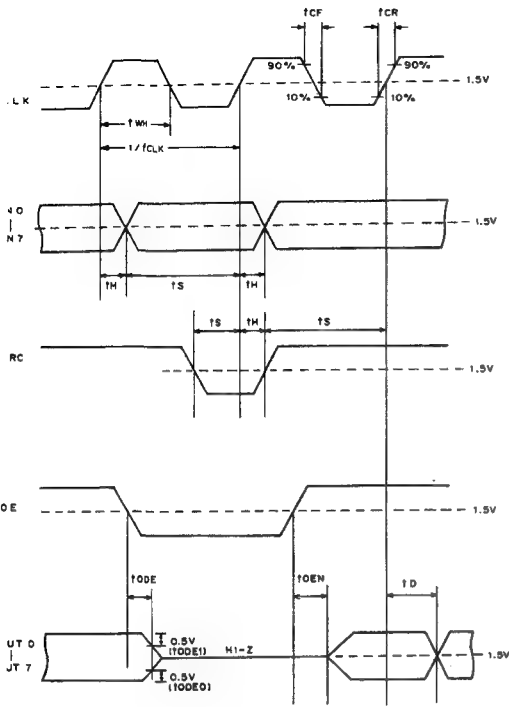
CLK; CLOCK INPUT  
ENRC; CIRCULATION CONTROL  
IN0-IN7; DATA INPUT  
OE; OUTPUT ENABLE  
OUT0-OUT7; DATA OUTPUT  
S0-S6; REGISTER LENGTH SELECT



MODULATABLE SHIFT REGISTER BLOCK

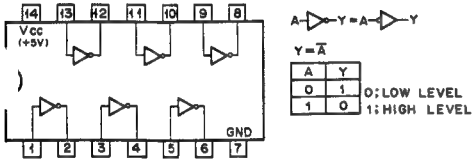






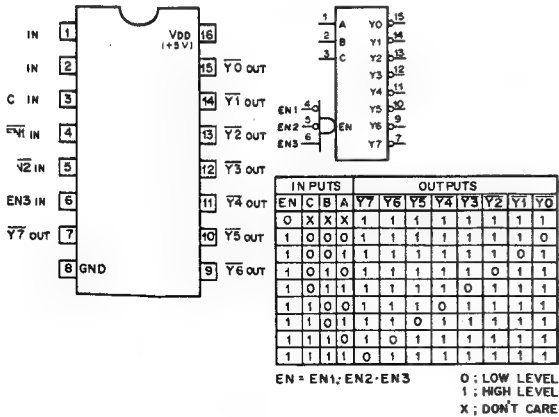
SN74ALS04BN (TI)  
SN74LS04N (TI)

TL INVERTER  
TOP VIEW -



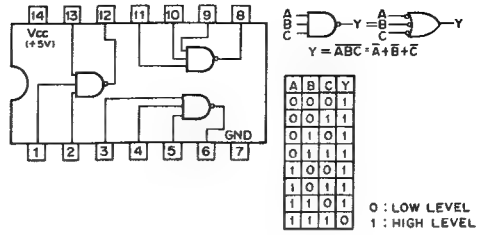
SN74ALS138N (TI)  
SN74LS138N (TI)

TL 3-TO-8-LINE DECODER/DEMULPLEXER  
TOP VIEW -



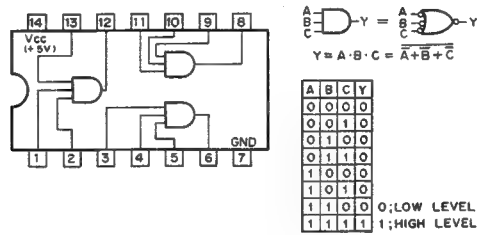
SN74ALS10AN (TI)  
SN74LS10N (TI)

TTL 3-INPUT POSITIVE NAND GATE  
TOP VIEW -



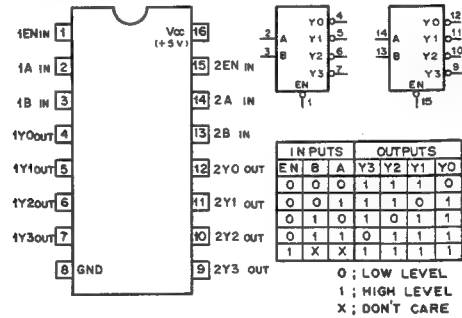
SN74ALS11AN (TI)

TTL 3-INPUT POSITIVE-AND GATE  
TOP VIEW -



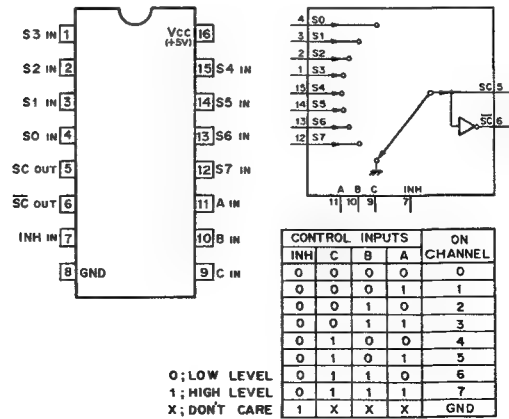
SN74ALS139NS (TI) FLAT PACKAGE  
SN74LS139AN (TI)

TTL 2-TO-4-LINE DECODER/DEMULPLEXER  
TOP VIEW -



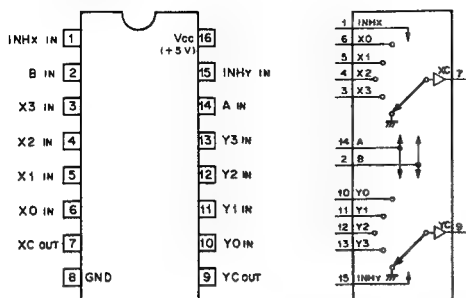
SN74ALS151N (TI)

TTL 8-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER  
TOP VIEW -





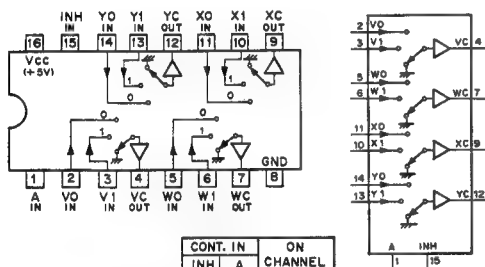
## SN74ALS153N (TI)

TTL 4-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER  
- TOP VIEW -

CONTROL IN	ON CHANNEL
INH B A	
0 0 0	0
0 0 1	1
0 1 0	2
0 1 1	3
1 X X	GND

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

## SN74ALS157AN (TI)

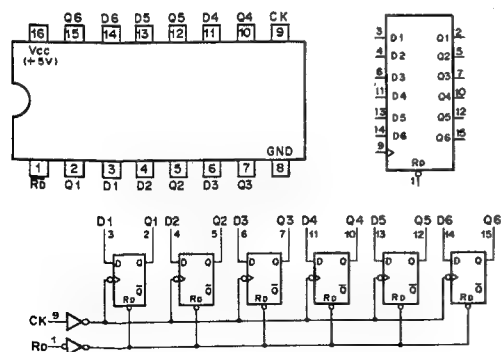
TTL QUAD 2-LINE-TO-1-LINE DATA SELECTORS/MULTIPLEXERS  
- TOP VIEW -

CONT. IN	ON CHANNEL
INH A	
0 0	0
0 1	1
1 X	GND

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

## SN74ALS174N (TI)

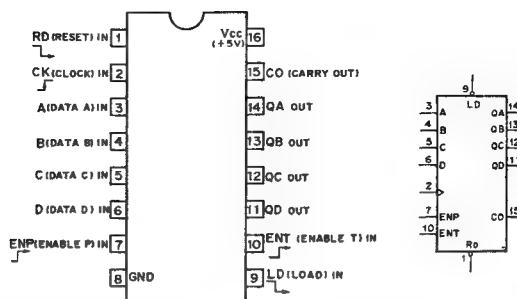
## SN74LS174N (TI)

TTL HEX D-TYPE FLIP-FLOPS WITH DIRECT RESET  
- TOP VIEW -

## EACH FLIP-FLOP

INPUTS	OUT
Rd CK D Q	
0 X X 0	0: LOW LEVEL
1 1 0 0	1: HIGH LEVEL
1 1 1 1	X: DON'T CARE
X 0 X Q0	Q0: NO CHANGE

## SN74ALS161BN (TI)

TTL PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER  
- TOP VIEW -

## MODE SELECTION

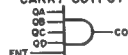
CONTROL INPUTS	MODE
Rd LD ENP ENT	
0 X X X	RESET (ASYNCHRONOUS)
1 0 X X	PRESET (SYNCHRONOUS)
1 1 0 X	NO COUNT
1 1 X 0	NO COUNT
1 1 1 1	COUNT

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

## COUNT SEQUENCE

COUNT	OUTPUS
	QD QC QB QA
0	0 0 0 0
1	0 0 0 1
2	0 0 1 0
3	0 0 1 1
4	0 1 0 0
5	0 1 0 1
6	0 1 1 0
7	0 1 1 1
8	1 0 0 0
9	1 0 0 1
10	1 0 1 0
11	1 0 1 1
12	1 1 0 0
13	1 1 0 1
14	1 1 1 0
15	1 1 1 1

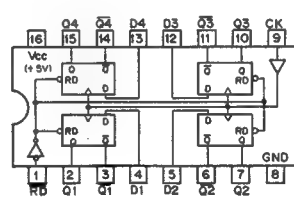
## CARRY OUTPUT "CO"



CO IS HIGH WHEN ENT INPUT IS HIGH AND COUNT IS "15".

## SN74ALS175N (TI)

## SN74LS175N (TI)

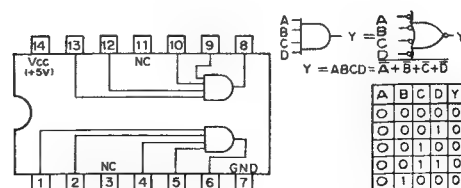
TTL D-TYPE FLIP-FLOP WITH CLEAR  
- TOP VIEW -

RD CK D Q Q	
0 X X 0 1	
1 1 1 1 0	
1 1 0 0 1	
1 0 X Q0 Q0	

0: LOW LEVEL  
1: HIGH LEVEL  
X: DON'T CARE

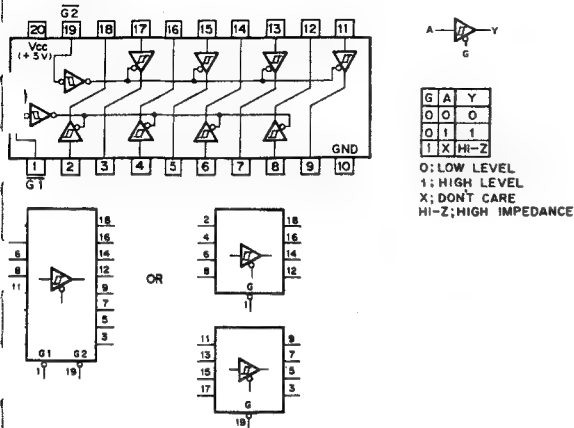
## SN74ALS21AN (TI)

## SN74LS21N (TI)

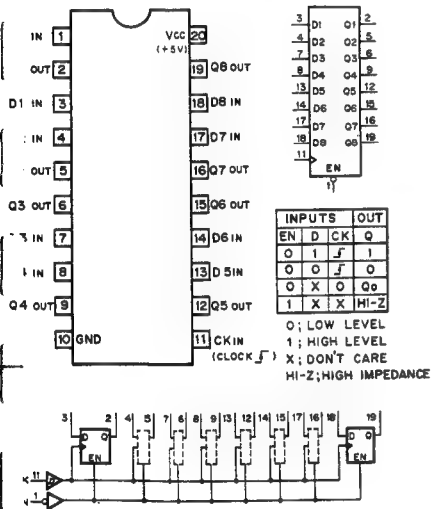
TTL 4-INPUT POSITIVE AND GATE  
- TOP VIEW -0: LOW LEVEL  
1: HIGH LEVEL



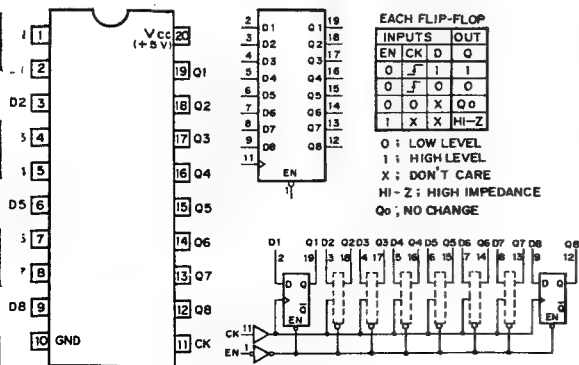
J74ALS244BN (TI)  
J74ALS244BNS (TI) FLAT PACKAGE  
SN74LS244N (TI)  
TTL 3-STATE SCHMITT TRIGGER BUFFER/DRIVER  
TOP VIEW -



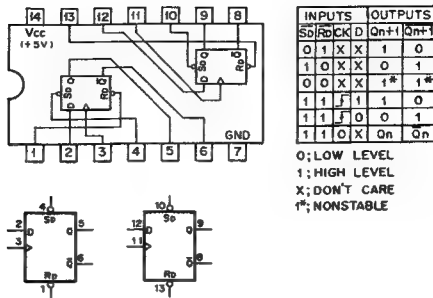
SN74ALS374AN (TI)  
J74LS374N (TI)  
TTL 3-STATE OUTPUTS OCTAL D-TYPE FLIP-FLOP  
TOP VIEW -



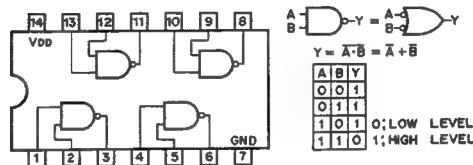
J74ALS574BNS (TI) FLAT PACKAGE  
TTL 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP  
TOP VIEW -



SN74ALS74AN (TI)  
SN74LS74AN (TI)  
SN74LS74ANS (TI) FLAT PACKAGE  
TTL D-TYPE FLIP FLOP WITH DIRECT SET/RESET  
TOP VIEW -



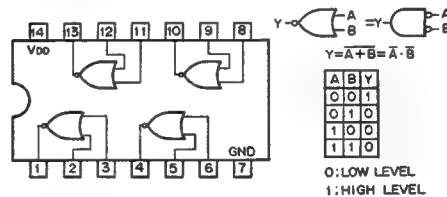
SN74HC00ANS (TI) FLAT PACKAGE  
CMOS QUAD 2-INPUT NAND GATES  
TOP VIEW -



NOTE:

TYPE	V <sub>DD</sub>
TC74AC00 TYPE	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

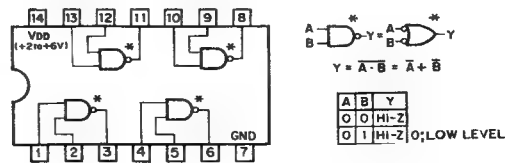
SN74HC02ANS (TI) FLAT PACKAGE  
CMOS QUAD 2-INPUT NOR GATES  
TOP VIEW -



NOTE:

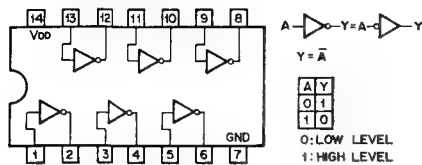
TYPE	V <sub>DD</sub>
TC74AC02F	+2 to +5.5V
74ACT02SJ	+4.5 to +5.5V
TC74ACT02F	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC03NS (TI) FLAT PACKAGE  
CMOS 2-INPUT POSITIVE-NAND GATE WITH OPEN-DRAIN  
TOP VIEW -





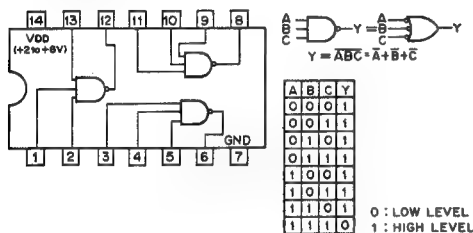
## SN74HC04ANS (TI) FLAT PACKAGE

C-MOS HEX INVERTERS  
- TOP VIEW -

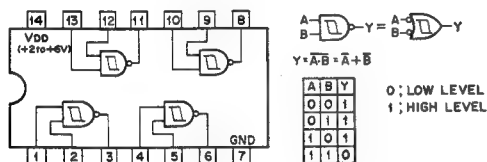
NOTE:

TYPE	V <sub>DD</sub>
74HCT04 TYPE	+5V
TC74AC04 TYPE	+2 to +5.5V
74ACT04 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

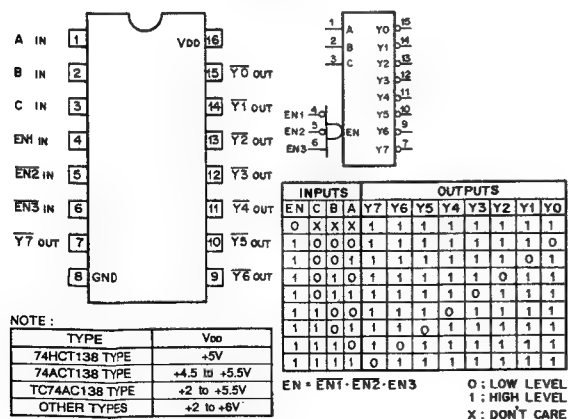
## SN74HC10ANS (TI) FLAT PACKAGE

C-MOS 3-INPUT NAND GATE  
- TOP VIEW -

## SN74HC132ANS (TI) FLAT PACKAGE

C-MOS 2-INPUT NAND SCHMITT TRIGGER  
- TOP VIEW -

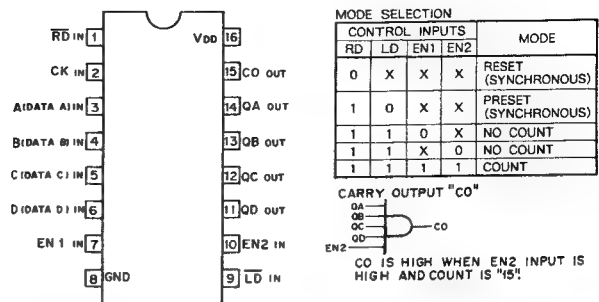
## SN74HC138ANS (TI) FLAT PACKAGE

C-MOS 3-TO-8 LINE DECODER/DEMULPLEXER  
- TOP VIEW -

NOTE:

TYPE	V <sub>DD</sub>
74HCT138 TYPE	+5V
74ACT138 TYPE	+4.5 to +5.5V
TC74AC138 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

## SN74HC163ANS (TI) FLAT PACKAGE

C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER  
- TOP VIEW -

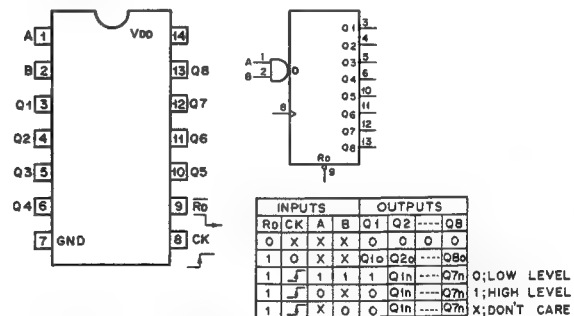
NOTE:

TYPE	V <sub>DD</sub>
74ACT163 TYPE	+4.5 to +5.5V
TC74AC163 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

COUNT SEQUENCE

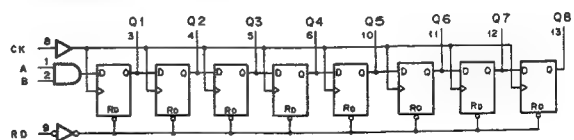
COUNT	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

## SN74HC164ANS (TI) FLAT PACKAGE

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER  
- TOP VIEW -

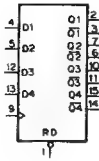
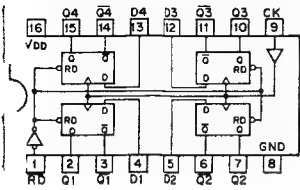
NOTE:

TYPE	V <sub>DD</sub>
TC74AC164 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V





## 74HC175ANS (TI) FLAT PACKAGE

CMOS QUAD D-TYPE FLIP-FLOPS WITH RESET  
- TOP VIEW -

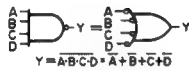
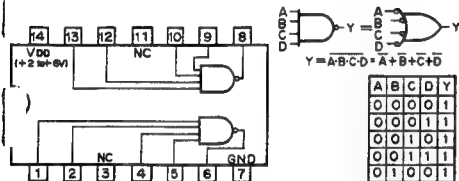
RD	CK	D	Q
0	X	X	0
1	0	1	1
1	1	0	0
1	0	X	Q <sub>0</sub>

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
Q<sub>0</sub>; NO CHANGE  
Q<sub>0</sub>; NO CHANGE

## NOTE:

TYPE	V <sub>DD</sub>
TC74AC175F	+2 to +5.5V
74ACT175 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

## SN74HC20ANS (TI) FLAT PACKAGE

CMOS 4-INPUT POSITIVE-NAND GATE  
- TOP VIEW -

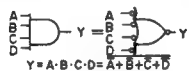
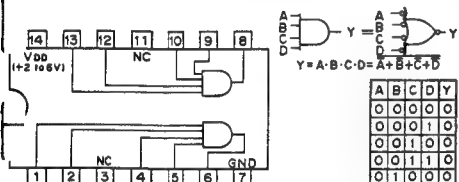
A	B	C	D	Y
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

0; LOW LEVEL  
1; HIGH LEVEL

## NOTE:

TYPE	V <sub>DD</sub>
TC74AC20	+2V to +5.5V
OTHER TYPES	+2V to +6V

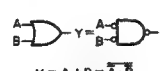
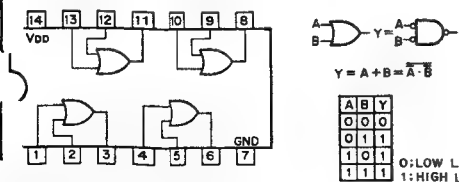
## 74HC21ANS (TI) FLAT PACKAGE

CMOS DUAL 4-INPUT POSITIVE AND GATE  
- TOP VIEW -

A	B	C	D	Y
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0
1	1	0	0	0
1	1	0	1	0
1	1	1	0	0
1	1	1	1	0

0; LOW LEVEL  
1; HIGH LEVEL

## 74HC32ANS (TI) FLAT PACKAGE

CMOS QUAD 2-INPUT OR GATES  
- TOP VIEW -

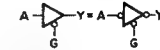
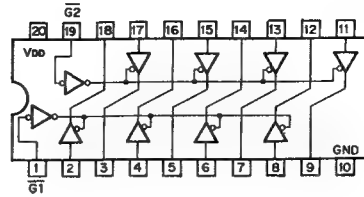
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL  
1; HIGH LEVEL

## NOTE:

TYPE	V <sub>DD</sub>
C74AC32 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

## SN74HC244ANS (TI) FLAT PACKAGE

CMOS BUS BUFFER WITH 3-STATE OUTPUTS  
- TOP VIEW -

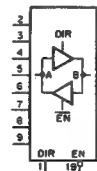
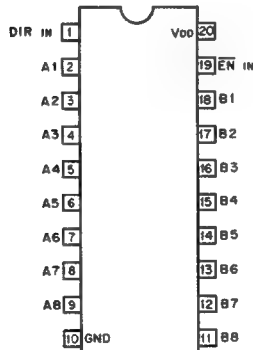
G	A	Y
0	0	0
0	1	1
1	X	Hi-Z

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
Hi-Z; HIGH IMPEDANCE

## NOTE:

TYPE	V <sub>DD</sub>
AC HC 40H	+2 to +6V
ACT HCT	+5V

## SN74HC245ANS (TI) FLAT PACKAGE

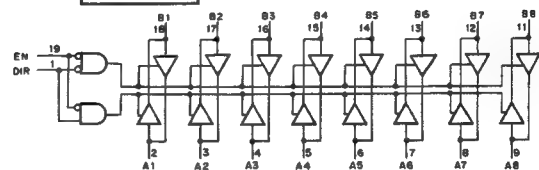
CMOS BILATERAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS  
- TOP VIEW -

EN	DIR	OPERATION
0	0	B to A
0	1	A to B
1	X	Hi-Z

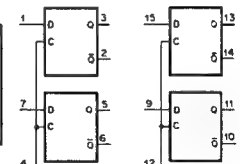
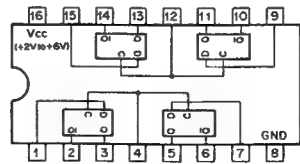
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE  
Hi-Z; HIGH IMPEDANCE

## NOTE:

TYPE	V <sub>DD</sub>
AC HC	+2 to +6V
ACT HCT	+5V
TC74AC245F TC74AC245P	+2 to +5.5V



## SN74HC375ANS (TI) FLAT PACKAGE

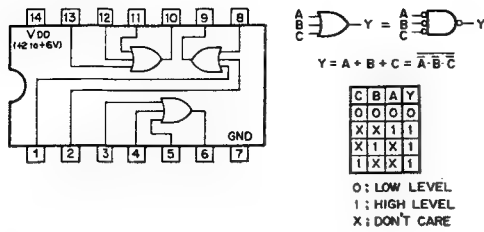
CMOS 4-BIT BISTABLE LATCHES  
- TOP VIEW -

D	C	Q	Q'
0	1	0	1
1	1	1	0
X	0	Q <sub>0</sub>	Q <sub>0</sub>

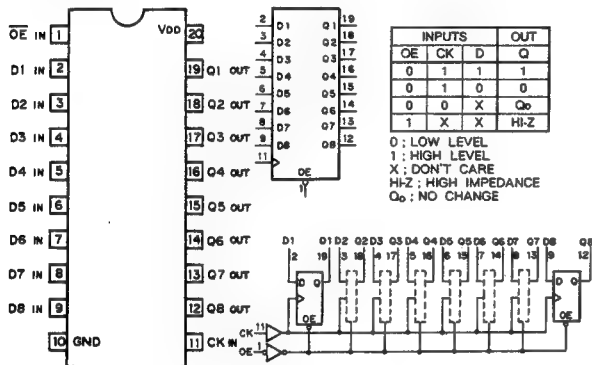
0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE



## SN74HC4075ANS (TI) FLAT PACKAGE

C-MOS 3-INPUT OR GATE  
- TOP VIEW -

## SN74HC573BNS (TI) FLAT PACKAGE

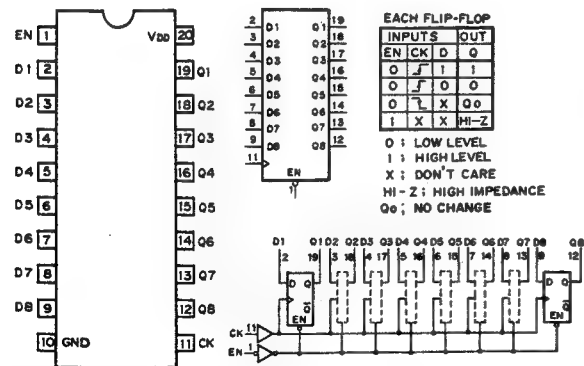
C-MOS 3-STATE OUTPUTS OCTAL LATCHES  
- TOP VIEW -

NOTE:

TYPE	V <sub>DD</sub>
AC	+2 to +6V
HC	+2 to +6V
ACT	+5V
HCT	+5V
TC74AC573	+2 to +5.5V

## SN74HC574ANS (TI) FLAT PACKAGE

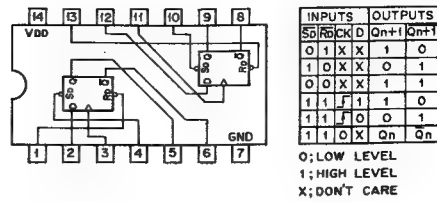
## SN74HCT574ANS (TI) FLAT PACKAGE

C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP  
- TOP VIEW -

NOTE:

TYPE	V <sub>DD</sub>
74AC/74HC	+2 to +6V
74ACT/74HCT	+5V
TC74AC574F	+2 to +5.5V

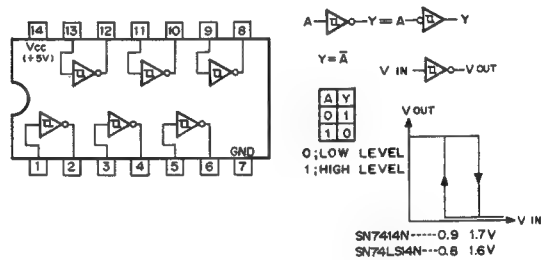
## SN74HC74ANS (TI) FLAT PACKAGE

C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET  
- TOP VIEW -

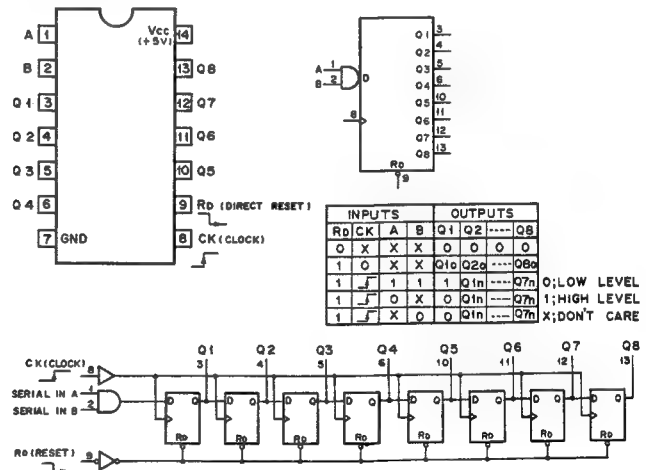
NOTE:

TYPE	V <sub>DD</sub>
TC74HCT74AF	+5V
TC74ACT74 TYPE	+2 to +5.5V
74ACT74 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

## SN74LS14NS (TI) FLAT PACKAGE

TTL SCHMITT TRIGGER INVERTER  
- TOP VIEW -

## SN74LS164N (TI)

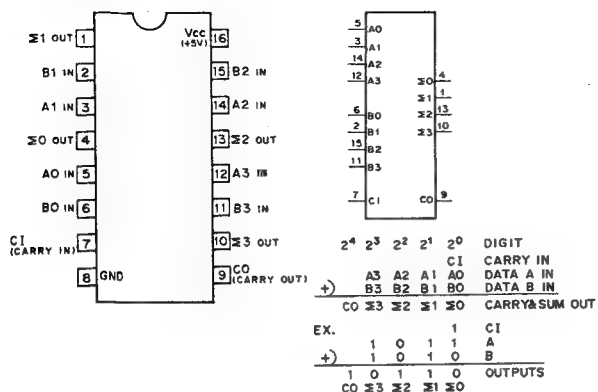
TTL 8-BIT PARALLEL-OUT SERIAL SHIFT REGISTER  
- TOP VIEW -



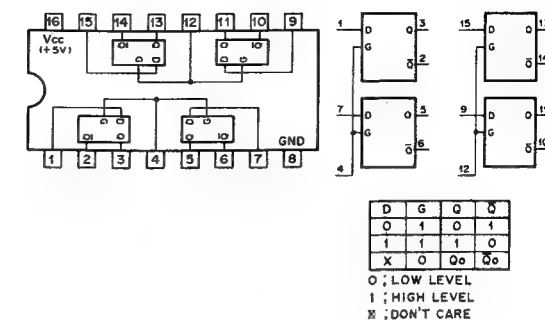




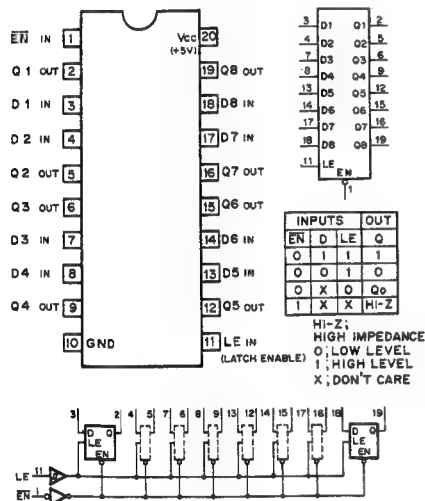
SN74LS283NS (TI) FLAT PACKAGE  
TTL 4-BIT BINARY FULL ADDER  
- TOP VIEW -



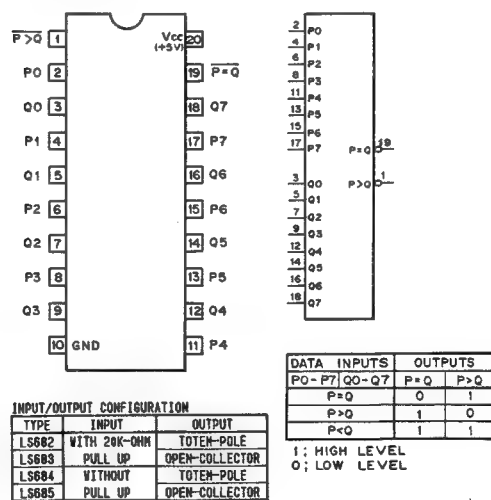
SN74LS375N (TI)  
TTL BISTABLE LATCH  
- TOP VIEW -



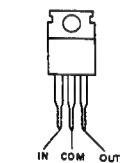
SN74LS373N (TI)  
TTL 3-STATE OUTPUTS OCTAL LATCHES  
- TOP VIEW -



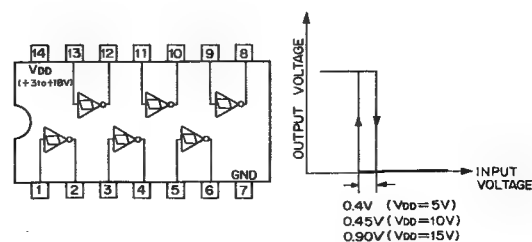
SN74LS684N (TI)  
TTL 8-BIT MAGNITUDE COMPARATOR  
WITH TOTEM-POLE OUTPUTS  
- TOP VIEW -



TA7805S (TOSHIBA) +5V  
POSITIVE VOLTAGE REGULATOR (0.5A)  
- SIDE VIEW -

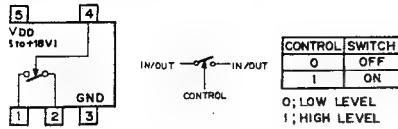


TC4584BF (TOSHIBA) FLAT PACKAGE  
C-MOS SCHMITT TRIGGER INVERTER  
- TOP VIEW -

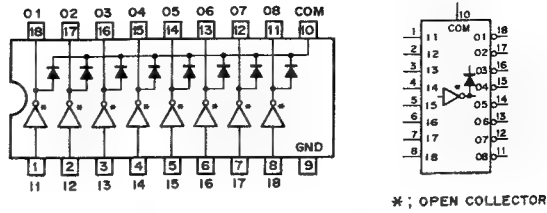




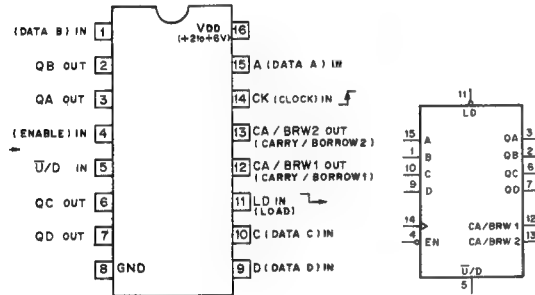
## 74S66F (TOSHIBA)

C-MOS BILATERAL ANALOG SWITCH  
- TOP VIEW -

## TD62083AP (TOSHIBA)

DARLINGTON DRIVER  
- TOP VIEW -

## 74HC191AF (TOSHIBA) FLAT PACKAGE

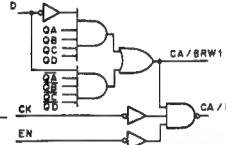
C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY UP/DOWN COUNTER  
- TOP VIEW -

## MODE SELECTION

CONTROL INPUTS			MODE
LD	EN	U/D	
0	X	X	PRESET (ASYNCHRONOUS)
1	1	X	NO COUNT
1	0	0	UP COUNT
1	0	1	DOWN COUNT

0; LOW LEVEL  
1; HIGH LEVEL  
X; DON'T CARE.

## CA/BRW OUTPUTS



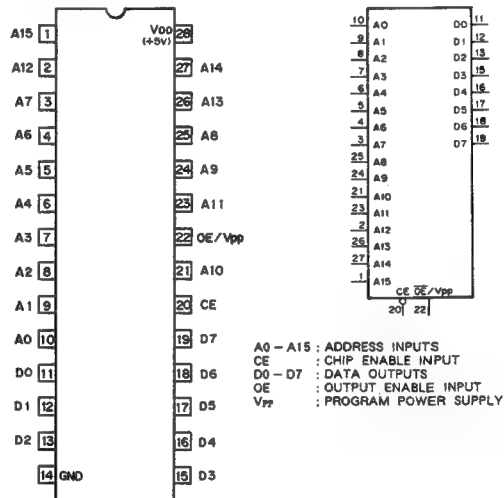
## COUNT SEQUENCE

COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

CA/BRW1 OUTPUT IS HIGH WHEN COUNT IS "15" AT UP-COUNT OR WHEN COUNT IS "0" AT DOWN COUNT.

CA/BRW2 OUTPUT IS LOW WHEN BOTH THE CLOCK AND EN INPUTS ARE HIGH AND CA/BRW1 OUTPUT IS HIGH.

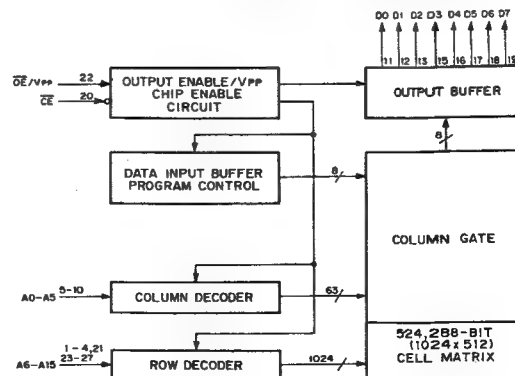
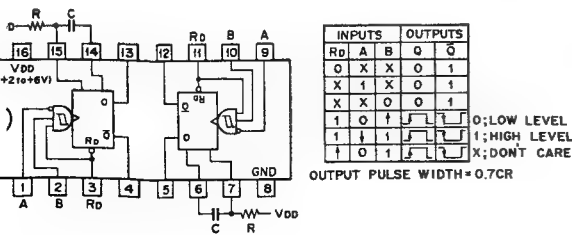
## TMS27C512-20JL (TI)

C-MOS 512K (65,536x8 = 524,288)-BIT ERASABLE PROM  
- TOP VIEW -

An	CE	OE/Vpp	Vpp	Dn	FUNCTION
A0n	0	0	+5V	Dout	READ
A0n	0	1	+5V	Hi-Z	OUTPUT DISABLE
X	1	X	+5V	Hi-Z	STANDBY
A0n	0	+12.5V	+6V	Din	PGM
A0n	0	0	+6V	Dout	PGM VERIFY
X	1	+12.5V	+6V	Hi-Z	PGM INH

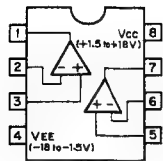
0 : LOW LEVEL  
1 : HIGH LEVEL  
X : DON'T CARE  
HI-Z : HIGH IMPEDANCE

## 74HC221AF (TOSHIBA) FLAT PACKAGE

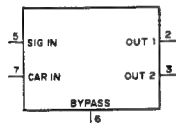
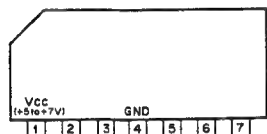
C-MOS MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT  
- TOP VIEW -



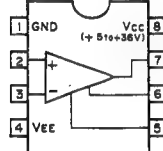
TL082CPS (TI) FLAT PACKAGE  
OPERATIONAL AMPLIFIER  
(JFET INPUT)  
- TOP VIEW -



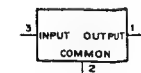
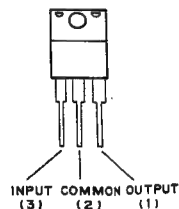
UPC1037HA (NEC)  
DOUBLE-BALANCED MODULATOR  
- SIDE VIEW -



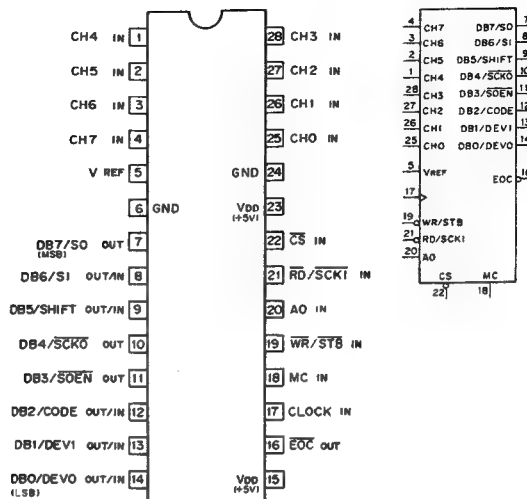
UPC311G2 (NEC) FLAT PACKAGE  
VOLTAGE COMPARATOR  
- TOP VIEW -



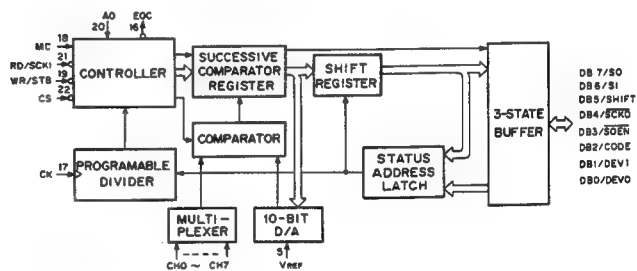
XRA17809T (EXAR) +9V  
POSITIVE VOLTAGE REGULATOR  
- FRONT VIEW -



UPD7004C (NEC)  
CMOS 10-BIT SUCCESSIVE COMPARTOR TYPE A/D CONVERTER  
- TOP VIEW -



AO ; CONTROL ADDRESS INPUT  
CH0~7; ANALOG INPUT  
CODE ; CODE SELECT (2'S COMPLEMENT/  
BINARY) INPUT  
CS ; CHIP SELECT INPUT  
DB0~7; DATA BUS INPUT/OUTPUT  
DEVO; DEVO  
DEV1; CLOCK RATE SELECT INPUT  
EOC ; CONVERSION ENDING SIGNAL  
MC ; MODE SELECT INPUT  
RD ; READ SIGNAL INPUT  
SCK1 ; SERIAL CLOCK INPUT  
SCKO ; SERIAL CLOCK OUTPUT  
SHIFT ; SHIFT SELECT (LSB FIRST/  
MSB FIRST)  
SI ; SERIAL INPUT  
SO ; SERIAL OUTPUT  
SOEN ; SERIAL OUTPUT ENABLE OUTPUT  
STB ; ADDRESS WRITE STROBE SIGNAL  
INPUT  
WR ; WRITE SIGNAL INPUT



MC	MODE
0	SERIAL
1	PARALLEL

PARALLEL MODE

CS	WR	RD	AO	MODE
1	X	X	X	HIGH IMPEDANCE
0	1	1	X	HIGH IMPEDANCE
0	0	1	0	#1 ANALOG CHANNEL SELECT
0	0	1	1	#2 CODE SELECT/ #3 CLOCK RATE SELECT
0	1	0	0	#4 LOW-BYTE DATA OUTPUT
0	1	0	1	#4 HIGH-BYTE DATA OUTPUT
0	0	0	X	INHIBIT

0; LOW LEVEL X: DON'T CARE  
1; HIGH LEVEL

#2 CODE SELECT

CODE	CODE SELECT
0	BINARY DATA
1	2'S COMPLEMENT DATA

#3 CLOCK RATE SELECT

DEV1	DEV0	CLOCK RATE
0	0	1
0	1	1/2
1	0	1/4
1	1	1/8

#4 LOW/HIGH-BYTE DATA

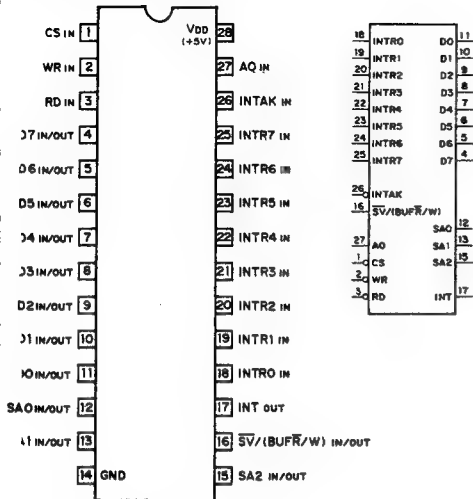
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
HIGH-BYTE	MSB	2ND	3RD	4TH	5TH	6TH	7TH	8TH
LOW-BYTE	9TH	0	1	2	3	4	5	6

#1 ANALOG CHANNEL	SEL2	SEL1	SELO	MPX CHAN.
0	0	0	1	CH0
0	0	1	1	CH1
0	1	0	1	CH2
0	1	1	1	CH3
1	0	0	0	CH4
1	0	1	0	CH5
1	1	0	0	CH6
1	1	1	1	CH7

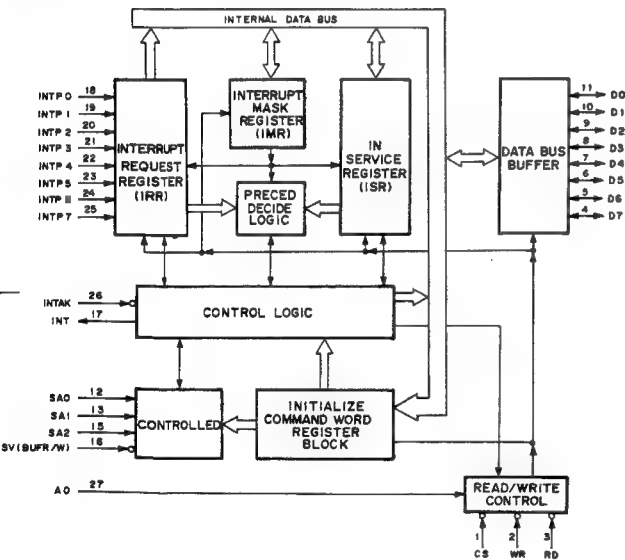


PD71059C (NEC)

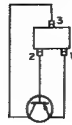
C-MOS INTERRUPT CONTROL UNIT  
- TOP VIEW -



INT0-INT7: INTERRUPT REQUEST INPUTS  
I0-I7: DATA BUS INPUTS/OUTPUTS  
CS: CHIP SELECT INPUT  
RD: READ STROBE INPUT  
WR: WRITE STROBE INPUT  
AQ: ADDRESS INPUT  
INT: INTERRUPT OUTPUT  
INTAK: INTERRUPT ACKNOWLEDGE INPUT  
I7(I/BUF/R/W): CONTROLLED/BUFFER READ/WRITE INPUT/OUTPUT  
SA0-SA2: CONTROLLED ADDRESS INPUTS/OUTPUTS



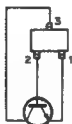
## TRANSISTOR



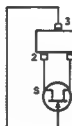
2SA1162G  
2SA1462



2SA952



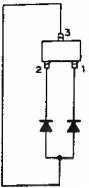
2SC1623  
2SC2757



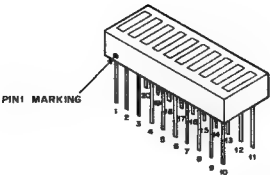
2SK508  
2SK94



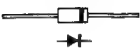
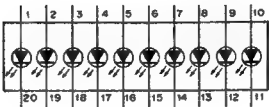
DIODE



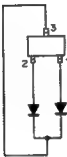
1S2836



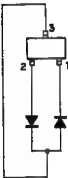
LD-010MW : GREEN



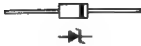
1SS119



MA152WK



1SS226



RD ? ?ESB ?



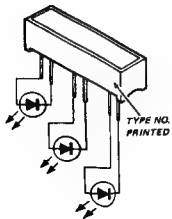
RD ? ?M-B ?  
RD ? ?MB



FC54M



TLR214 ; RED



LD-701MG ; GREEN



TLY123 ; YELLOW



## SECTION 8

### SPARE PARTS

#### 8-1. NOTES ON SPARE PARTS

**(1) Safety Related Components Warning**

Components marked with  $\Delta$  on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.

Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

**(2) Standardization of Parts**

Spare parts supplied from Sony Parts Center may not always be identical with the parts actually in use due to accommodating the improved parts and/or engineering changes or standardization of genuine parts.

This manual's exploded views and electrical spare parts list indicate the part numbers of the standardized genuine parts at present.

**(3) Stock of Part**

Parts marked with "o" in the SP(Supply code)column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional time for delivery.

**(4) Units for Capacitors, Inductors and resistors**

The following units may be assumed in schmatic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitor:  $\mu$  F

Inductor :  $\mu$  H

Resistor :  $\Omega$



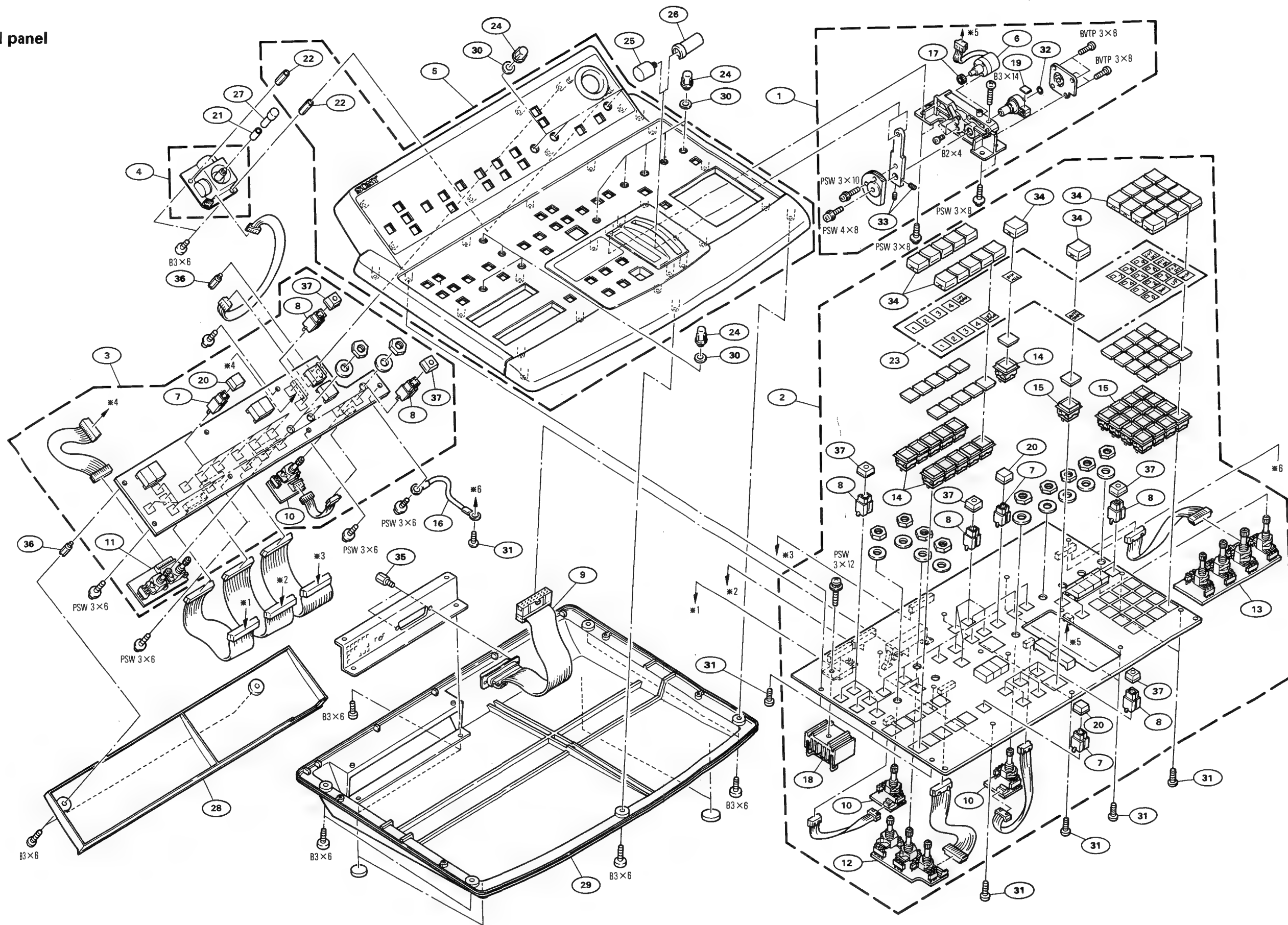
## 8-2. EXPLODED VIEW AND LIST

CONTROL PANEL, DFS-500/500P

No.	Part No.	SP Description
1	A-8262-836-A	o FADER ASSY
2	A-8271-686-A	o MOUNTED CIRCUIT BOARD, KY-223
3	A-8271-687-A	o MOUNTED CIRCUIT BOARD, KY-225
4	A-8271-688-A	o MOUNTED CIRCUIT BOARD, KY-226
5	X-3166-840-1	o PANEL ASSY, UPPER
6	1-466-182-11	s ENCODER, ROTARY (MAGNETIC)
7	1-571-653-21	s SWITCH, TACTIL
8	1-571-654-21	s SWITCH, TACTIL
9	1-574-992-11	s WIRE ASSY, FLAT TYPE(25 CORE)
10	1-644-610-11	o PRINTED CIRCUIT BOARD, VR-135
11	1-644-611-11	o PRINTED CIRCUIT BOARD, VR-136
12	1-644-612-11	o PRINTED CIRCUIT BOARD, VR-137
13	1-644-613-11	o PRINTED CIRCUIT BOARD, VR-138
14	1-692-347-11	s SWITCH, PUSH
15	1-692-348-11	s SWITCH, PUSH
16	1-951-147-11	o HARNESS (KY-4)
17	2-139-100-01	s GEAR (C)
18	2-139-131-01	o HEAT SINK, CON.
19	2-139-171-01	s SPACER (F)
20	2-140-311-04	s KEY TOP
21	3-166-428-01	s COVER, JOG
22	3-168-210-01	o SPACER (A)
23	3-177-559-01	o CHIP (A), SW
24	3-178-147-02	s KNOB, VOLUME
25	3-178-149-01	o GRIP (A)
26	3-178-150-01	o GRIP (B)
27	3-178-151-01	s LEVER, JOG
28	3-178-173-01	o PANEL, REAR
29	3-178-178-01	o PANEL, LOWER
30	3-179-652-01	s WASHER
31	3-678-079-01	s SCREW, +BVWH 3X8
32	3-701-443-21	s WASHER, POLY 5mm DIA., 0.5T
33	3-701-508-00	s SET SCREW, DOUBLE POINT 3X6
34	3-708-563-01	o CAP
35	3-711-228-21	o STANDOFF, D SUB CONN.
36	3-897-313-01	s BOSS (17.2), RELAY
37	4-928-315-01	s KEY TOP



## Control panel

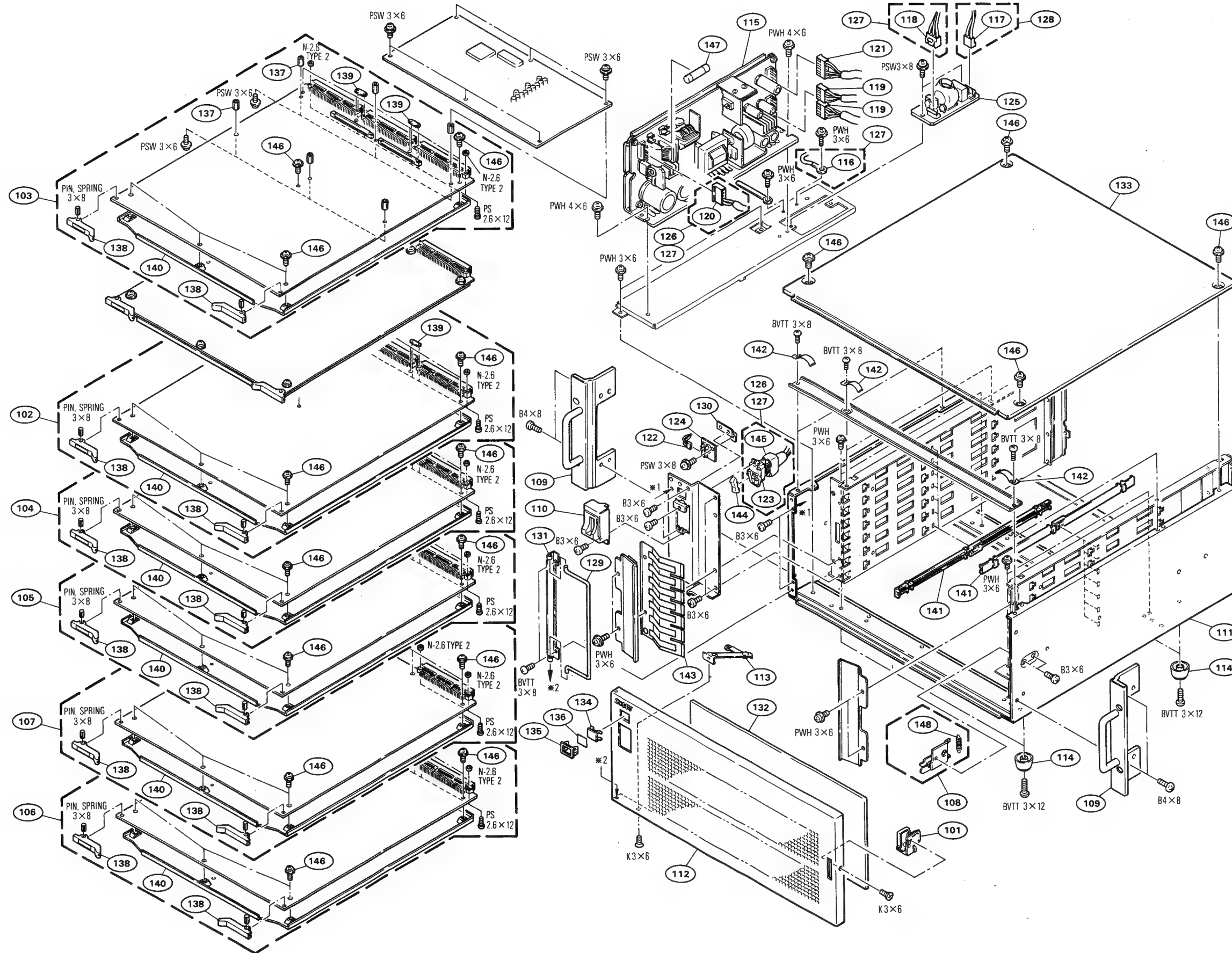




FRONT PANEL

FRONT PANEL

Front panel





## FRONT PANEL, DFS-500/500P

No.	Part No.	SP Description
101	A-8262-832-A	o HANDLE ASSY, DOOR
102	A-8271-679-A	o MOUNTED CIRCUIT BOARD, MY-54
103	A-8271-680-A	o MOUNTED CIRCUIT BOARD, DA-63 (For J, UC)
	A-8271-692-A	o MOUNTED CIRCUIT BOARD, DA-63P (For EK)
104	A-8271-683-A	o MOUNTED CIRCUIT BOARD, PU-78
105	A-8271-684-A	o MOUNTED CIRCUIT BOARD, FM-29 (For J, UC)
	A-8271-693-A	o MOUNTED CIRCUIT BOARD, FM-29P (For EK)
106	A-8271-685-A	o MOUNTED CIRCUIT BOARD, AD-76 (For J, UC)
	A-8271-697-A	o MOUNTED CIRCUIT BOARD, AD-76P (For EK)
107	A-8271-694-A	o MOUNTED CIRCUIT BOARD, SY-172 (For J)
	A-8271-682-A	o MOUNTED CIRCUIT BOARD, SY-172 (For UC)
	A-8271-695-A	o MOUNTED CIRCUIT BOARD, SY-172P (For EK)
108	X-2127-216-1	o LOCK ASSY, DOOR
109	X-2127-223-2	o ANGLE ASSY (4U), RACK
110	X-2127-224-1	s BRACKET ASSY, SW
111	X-2127-225-3	o CHASSIS (4U) ASSY
112	X-3166-837-1	o PANEL ASSY, FRONT (For J, UC)
	X-3166-876-1	o PANEL ASSY, FRONT (For EK)
113	X-3166-838-1	o STOPPER ASSY
114	X-3566-109-0	s FOOT ASSY, MF
115	A1-413-776-11	s SWITCHING REGULATOR (SSOG1213) (For J, UC)
	A1-413-776-21	s SWITCHING REGULATOR (SSOG1213KA) (For EK)
116	1-535-340-11	o TERMINAL, SOLDERLESS
117	A1-562-211-11	o HOUSING, CONNECTOR 3P (For EK)
	A1-562-210-11	o CONNECTOR, CONTACT
118	A1-562-286-11	o HOUSING, CONNECTOR 5P (For EK)
	A1-562-210-11	o CONNECTOR, CONTACT
119	1-562-819-11	o HOUSING, CONNECTOR 4P
	A1-560-764-21	o TERMINAL, SOLDERLESS
120	A1-562-820-11	o HOUSING, CONNECTOR 5P
	A1-560-764-21	o TERMINAL, SOLDERLESS
121	1-562-821-11	o HOUSING, CONNECTOR 6P
	A1-560-764-21	o TERMINAL, SOLDERLESS
122	1-569-196-31	o HOUSING, CONNECTOR 3P
	1-569-193-11	o TERMINAL, SOLDERLESS
123	A1-570-117-41	s SWITCH, SEESAW (AC POWER)
124	1-620-338-11	o PC BOARD, LE-55
125	1-636-387-12	o PC BOARD, AC-111 (For EK)
126	A1-950-804-11	o HARNESS (ACW-500) (For J, UC)
127	A1-950-974-11	o HARNESS (ACW-500PB) (For EK)
128	A1-950-975-11	o HARNESS (ACW-500PA) (For EK)
129	2-139-101-01	o SHAFT (4U), HINGE
130	2-139-108-01	o BRACKET, LED
131	2-139-127-01	s HINGE (4U)
132	2-139-136-03	s FILTER (4U)
133	2-139-153-01	o PLATE (D450), TOP
134	2-139-192-01	o FRAME, INDICATOR WINDOW
135	2-139-193-01	o WINDOW, INDICATOR
136	2-249-353-00	o COVER, LAMP
137	2-280-622-21	o SUPPORT (M3X10), HEXAGON
138	3-166-184-01	o LEVER, PC BOARD
139	3-166-185-01	s NUT, PLATE
140	3-178-157-01	o PLATE, SHIELD
141	3-178-164-01	o RAIL (290), PC BOARD GUIDE
142	3-178-672-01	o FINGER, SHIELD
143	3-179-322-01	o SPRING (L), GROUND
144	3-688-814-01	s CAP, SWITCH
145	4-378-341-01	o COVER, SWITCH
146	4-886-821-11	s SCREW, M3 CASE
147	A9-903-804-01	s FUSE GGL10 250V10A (For J, UC)
	A9-903-806-01	s FUSE S506-6.3A COLOR (For EK)
148	9-910-999-31	s SPRING, TENSION



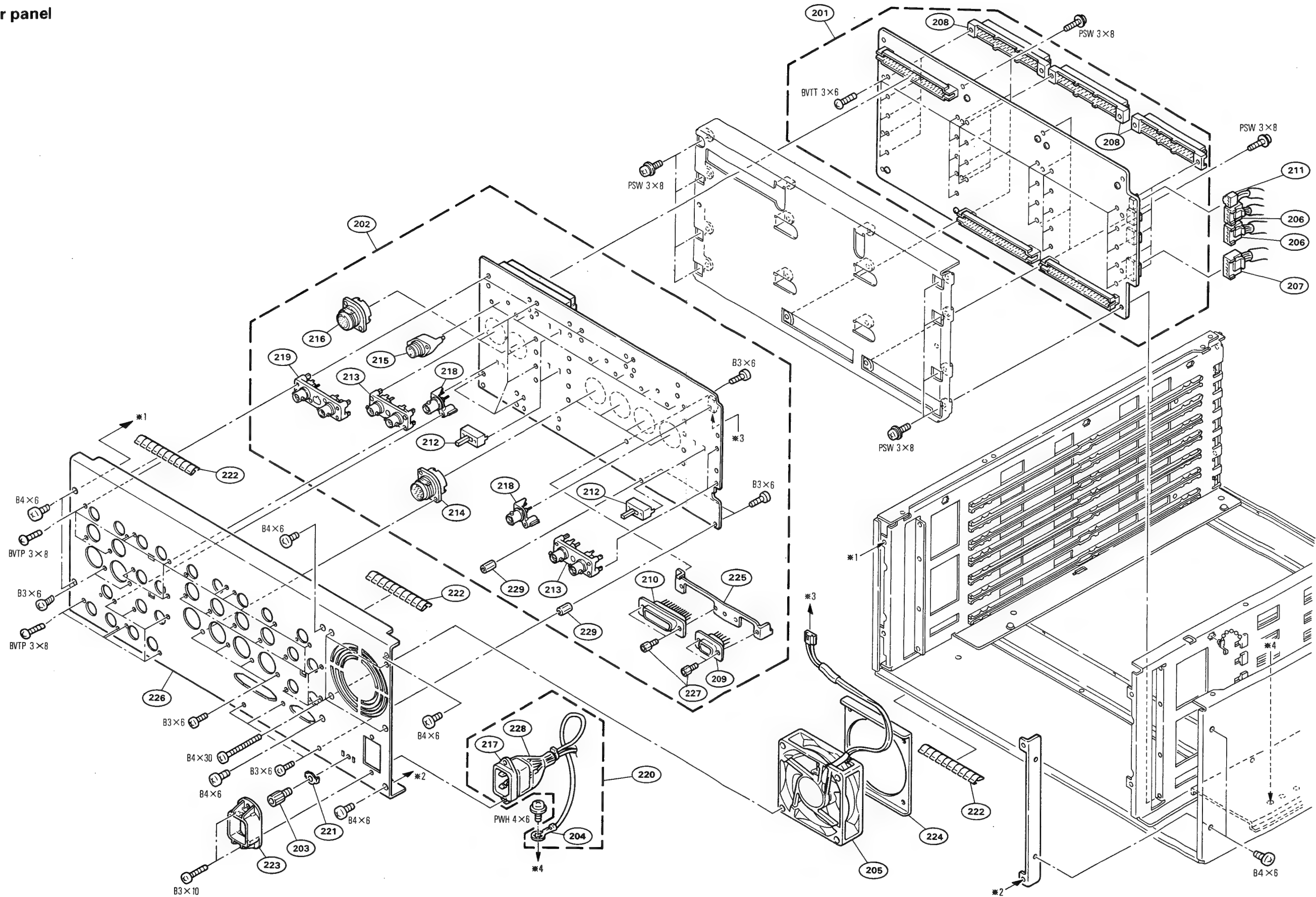
# REAR PANEL

## REAR PANEL, DFS-500/500P

No.	Part No.	SP Description
201	A-8271-678-A	o MOUNTED CIRCUIT BOARD, MB-385
202	A-8271-681-A	o MOUNTED CIRCUIT BOARD, CN-573
203	X-2068-004-0	s TERMINAL ASSY
204	1-535-316-11	s TERMINAL, GROUND (M4)
205	1-541-329-31	s FAN, DC (WITH ALARM)
206	1-562-285-11	o HOUSING, CONNECTOR 4P
	△1-562-210-11	o CONNECTOR, CONTACT
207	△1-562-286-11	o HOUSING, CONNECTOR 5P
	△1-562-210-11	o CONNECTOR, CONTACT
208	1-563-337-11	s HOUSING, CONNECTOR (DIP) 96P
209	1-568-676-11	o CONNECTOR, D-SUB 9P
210	1-568-677-11	o CONNECTOR, D-SUB 25P
211	1-569-196-11	o HOUSING, CONNECTOR 3P
	1-569-193-11	o TERMINAL, SOLDERLESS
212	1-570-157-51	s SWITCH, SLIDE
213	1-573-580-11	s CONNECTOR, BNC (RECEPTACLE)
214	1-573-589-11	s CONNECTOR (R-M) 12P
215	1-573-590-12	s CONNECTOR, (S) TERMINAL 4P
216	1-573-592-11	s CONNECTOR (R-F) 12P
217	△1-580-375-11	s INLET 3P
218	1-691-274-11	s CONNECTOR ASSY (BNC) 1P
219	1-695-807-11	s CONNECOTR, BNC (RECEPTACLE)
220	△1-950-804-11	o HARNESS (ACW-500) (For J, UC)
	△1-950-975-11	o HARNESS (ACW-500PA) (For EK)
221	2-068-008-00	s WASHER
222	2-139-222-01	o SPRING
223	2-990-241-02	s HOLDER (A), PLUG
224	3-178-136-01	o BRACKET, FAN
225	3-178-137-01	o BRACKET, D-SUB
226	3-178-161-01	o PANEL, REAR
227	3-673-910-21	o SCREW, CONNECTOR
228	4-601-466-11	o COVER, 3P INLET
229	4-876-607-21	o COLLAR (E), PLATE, JACK



rear panel





### 8-3. ELECTRICAL PARTS LIST

#### CAPACITOR (CERAMIC)

Part No.    SP Description

1-163-097-00 s CERAMIC, CHIP 15pF 5% 50V  
1-163-038-00 s CERAMIC, CHIP 0.1 50V

#### RESISTOR (METAL)

Part No.    SP Description

1-216-624-11 s METAL, CHIP 75 1% 1/10W  
1-216-627-11 s METAL, CHIP 100 1% 1/10W  
1-216-631-11 s METAL, CHIP 150 1% 1/10W  
1-216-651-11 s METAL, CHIP 1.0k 1% 1/10W  
1-216-659-11 s METAL, CHIP 2.2k 1% 1/10W

1-216-667-11 s METAL, CHIP 4.7k 1% 1/10W  
1-216-675-11 s METAL, CHIP 10k 1% 1/10W  
1-216-699-11 s METAL, CHIP 100k 1% 1/10W



## AC-111 BOARD used for DFS-500P

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-636-387-12	PRINTED CIRCUIT BOARD, AC-111
C1	△1-136-185-00	s FILM 0.22uF 20% 250V
C2	△1-137-106-11	s FILM 0.022uF 20% 25V
C3	△1-162-573-11	s CERAMIC 100PF 10% 400V
C4	△1-162-573-11	s CERAMIC 100PF 10% 400V
CN1	△1-564-321-00	o CONNECTOR, VH 2P, MALE
CN2	△1-564-687-11	o CONNECTOR, VH 3P, MALE
L1	△1-421-944-11	s TRANSFORMER, LINE FILTER
R1	△1-214-937-00	s METAL 1M 1% 1/2W

## AD-76 BOARD used for DFS-500

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-685-A	o MOUNTED CIRCUIT BOARD, AD-76
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
C1	1-126-934-11	s ELECT 220uF 20% 16V
C2	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C3	1-126-934-11	s ELECT 220uF 20% 16V
C4	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C5	1-126-934-11	s ELECT 220uF 20% 16V
C6	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C7	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C8	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C9	1-126-934-11	s ELECT 220uF 20% 16V
C10	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C11	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C12	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C13	1-126-934-11	s ELECT 220uF 20% 16V
C14	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C15	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C16	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C17	1-126-934-11	s ELECT 220uF 20% 16V
C18	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C19	1-126-934-11	s ELECT 220uF 20% 16V
C20	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C21	1-126-934-11	s ELECT 220uF 20% 16V
C22	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C23	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C24	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C25	1-126-925-11	s ELECT 470uF 20% 10V
C26	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C27	1-126-925-11	s ELECT 470uF 20% 10V
C28	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C31	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C36	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C37	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C39	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C41	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C101	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C102	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C103	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C104	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C105	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C106	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C107	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C109	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C110	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C111	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C112	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C113	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C114	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C115	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C117	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C118	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C119	1-162-638-11	s CERAMIC, CHIP 1uF 16V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C120	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C121	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C122	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C123	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C125	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C126	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C127	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C128	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C129	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C130	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C131	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C133	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C134	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C135	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C136	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C137	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C138	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C139	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C141	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C142	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C143	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C144	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C145	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C146	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C147	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C201	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C202	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C203	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C204	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C205	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C206	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C207	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C209	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C210	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C211	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C212	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C213	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C214	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C215	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C217	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C218	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C219	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C220	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C221	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C222	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C223	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C225	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C226	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C227	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C228	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C229	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C230	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C231	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C233	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C234	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C235	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C236	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C237	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C238	1-126-394-11	s ELECT, CHIP 10uF 20% 16V

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C239	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C241	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C242	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C243	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C244	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C245	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C246	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C247	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C301	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C302	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C305	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C306	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C307	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C309	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C310	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C311	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C312	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C313	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C318	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C319	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C321	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C332	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C341	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C342	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C343	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C344	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C347	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C352	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C353	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C355	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C359	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C361	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C363	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C366	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C367	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C370	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C371	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C382	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C383	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C385	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C386	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C387	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C388	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C401	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C402	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C405	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C406	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C407	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C409	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C410	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C411	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C412	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C413	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C418	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C419	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C421	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C432	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C441	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C442	1-126-394-11	s ELECT, CHIP 10uF 20% 16V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C443	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C444	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C447	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C452	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C453	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C455	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C459	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C461	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C463	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C466	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C467	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C470	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C471	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C482	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C483	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C485	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C486	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C487	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C488	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C501	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C502	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C507	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C508	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C510	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C521	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C525	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C526	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C527	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C528	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C529	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C530	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C531	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C534	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C536	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C537	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C539	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C540	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C541	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C542	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C543	1-163-229-11	s CERAMIC, CHIP 12PF 5% 50V
C544	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C545	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C546	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C547	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C548	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C560	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C562	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C563	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C565	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C566	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C572	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C576	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C585	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C586	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C587	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C588	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C589	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C590	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C592	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C593	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C594	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C595	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C601	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C602	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C607	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C608	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C610	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C621	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C625	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C626	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C627	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C628	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C629	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C630	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C631	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C634	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C636	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C637	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C639	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C640	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C641	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C642	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C643	1-163-229-11	s CERAMIC, CHIP 12PF 5% 50V
C644	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C645	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C646	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C647	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C648	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C660	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C662	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C663	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C665	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C666	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C672	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C676	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C685	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C686	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C687	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C688	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C689	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C690	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C692	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C693	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C694	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C695	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C701	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C702	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C703	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C704	1-163-087-00	s CERAMIC, CHIP 4PF 50V
C720	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C740	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C751	1-104-601-21	s ELECT 10uF 20% 10V
C752	1-104-601-21	s ELECT 10uF 20% 10V
C753	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C756	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C757	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C759	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C760	1-162-638-11	s CERAMIC, CHIP 1uF 16V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C763	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C764	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C765	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C766	1-104-601-21	s ELECT 10uF 20% 10V
C767	1-104-601-21	s ELECT 10uF 20% 10V
C770	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C771	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C773	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C774	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C777	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C778	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C779	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C786	1-104-601-21	s ELECT 10uF 20% 10V
C787	1-104-601-21	s ELECT 10uF 20% 10V
C790	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C791	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C793	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C794	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C797	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C798	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C799	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C801	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C802	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C803	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C804	1-163-087-00	s CERAMIC, CHIP 4PF 50V
C820	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C840	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C851	1-104-601-21	s ELECT 10uF 20% 10V
C852	1-104-601-21	s ELECT 10uF 20% 10V
C853	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C856	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C857	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C859	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C860	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C863	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C864	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C865	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C866	1-104-601-21	s ELECT 10uF 20% 10V
C867	1-104-601-21	s ELECT 10uF 20% 10V
C870	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C871	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C873	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C874	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C877	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C878	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C879	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C886	1-104-601-21	s ELECT 10uF 20% 10V
C887	1-104-601-21	s ELECT 10uF 20% 10V
C890	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C891	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C893	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C894	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C897	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C898	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C899	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C901	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C902	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C908	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C909	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C911	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C915	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C916	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C918	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C919	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C922	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C923	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C927	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C930	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C939	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C944	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C945	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C946	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C952	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C953	1-163-137-00	s CERAMIC, CHIP 680PF 5% 50V
C954	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C955	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C956	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C957	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C958	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C961	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C962	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C963	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C965	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C968	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C1001	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C1002	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C1008	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1009	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1011	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C1015	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1016	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1018	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1019	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1022	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1023	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C1027	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1030	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C1039	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C1044	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1045	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1046	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1052	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C1053	1-163-137-00	s CERAMIC, CHIP 680PF 5% 50V
C1054	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1055	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C1056	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C1057	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C1058	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1061	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C1062	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C1063	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1065	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1068	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
CN19	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN20	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN21	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CV101	1-141-229-00	s CAP, TRIMMER 7PF

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
CV201	1-141-229-00	s CAP, TRIMMER 7PF
D101	8-719-104-34	s DIODE 1S2835
D102	8-719-104-34	s DIODE 1S2835
D103	8-719-104-34	s DIODE 1S2835
D106	8-719-104-34	s DIODE 1S2835
D107	8-719-104-34	s DIODE 1S2835
D111	8-719-104-34	s DIODE 1S2835
D112	8-719-104-34	s DIODE 1S2835
D113	8-719-104-34	s DIODE 1S2835
D121	8-719-104-34	s DIODE 1S2835
D122	8-719-104-34	s DIODE 1S2835
D123	8-719-105-57	s DIODE RD3.9M-B1
D124	8-719-157-23	s DIODE RD4.7M-B
D125	8-719-915-43	s DIODE, VARICAP FC54M
D126	8-719-915-43	s DIODE, VARICAP FC54M
D201	8-719-104-34	s DIODE 1S2835
D202	8-719-104-34	s DIODE 1S2835
D203	8-719-104-34	s DIODE 1S2835
D206	8-719-104-34	s DIODE 1S2835
D207	8-719-104-34	s DIODE 1S2835
D211	8-719-104-34	s DIODE 1S2835
D212	8-719-104-34	s DIODE 1S2835
D213	8-719-104-34	s DIODE 1S2835
D221	8-719-104-34	s DIODE 1S2835
D222	8-719-104-34	s DIODE 1S2835
D223	8-719-105-57	s DIODE RD3.9M-B1
D224	8-719-157-23	s DIODE RD4.7M-B
D225	8-719-915-43	s DIODE, VARICAP FC54M
D226	8-719-915-43	s DIODE, VARICAP FC54M
D301	8-719-104-34	s DIODE 1S2835
DL101	1-415-348-21	s DELAY LINE 280NS
DL102	1-415-309-00	s DELAY LINE 350nS
DL103	1-415-348-21	s DELAY LINE 280NS
DL201	1-415-348-21	s DELAY LINE 280NS
DL202	1-415-309-00	s DELAY LINE 350nS
DL203	1-415-348-21	s DELAY LINE 280NS
FL101	1-239-085-11	s FILTER, LOW-PASS
FL102	1-239-085-11	s FILTER, LOW-PASS
FL103	1-239-085-11	s FILTER, LOW-PASS
FL111	1-235-758-11	s FILTER, LOW-PASS
FL112	1-235-758-11	s FILTER, LOW-PASS
FL113	1-239-085-11	s FILTER, LOW-PASS
FL114	1-235-758-11	s FILTER, LOW-PASS
FL115	1-235-758-11	s FILTER, LOW-PASS
FL201	1-239-085-11	s FILTER, LOW-PASS
FL202	1-239-085-11	s FILTER, LOW-PASS
FL203	1-239-085-11	s FILTER, LOW-PASS
FL211	1-235-758-11	s FILTER, LOW-PASS
FL212	1-235-758-11	s FILTER, LOW-PASS
FL213	1-239-085-11	s FILTER, LOW-PASS
FL214	1-235-758-11	s FILTER, LOW-PASS
FL215	1-235-758-11	s FILTER, LOW-PASS
IC1	8-759-231-53	s IC TA7805S
IC2	8-759-520-06	s IC NJM7809FA
IC3	8-759-520-06	s IC NJM7809FA
IC4	8-759-701-87	s IC NJM7909FA
IC101	8-759-710-29	s IC NJM2235M

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
IC102	8-759-710-62	s IC NJM2246M
IC103	8-759-710-29	s IC NJM2235M
IC104	8-759-710-62	s IC NJM2246M
IC105	8-759-710-07	s IC NJM2234M
IC106	8-759-711-32	s IC NJM2245M
IC107	8-759-710-29	s IC NJM2235M
IC108	8-759-710-62	s IC NJM2246M
IC109	8-759-710-07	s IC NJM2234M
IC110	8-759-711-32	s IC NJM2245M
IC111	8-759-710-07	s IC NJM2234M
IC112	8-759-711-32	s IC NJM2245M
IC113	8-759-925-74	s IC TC74HC04NS
IC114	8-759-926-99	s IC SN74HC4075NS
IC115	8-759-926-99	s IC SN74HC4075NS
IC116	8-759-925-85	s IC SN74HC32NS
IC117	8-759-925-82	s IC SN74HC21NS
IC118	8-759-925-85	s IC SN74HC32NS
IC119	8-759-925-85	s IC SN74HC32NS
IC120	8-759-925-82	s IC SN74HC21NS
IC121	8-759-925-74	s IC TC74HC04NS
IC122	8-752-334-55	s IC CXD1175M
IC123	8-752-342-61	s IC CXD2105AQ
IC124	8-759-710-29	s IC NJM2235M
IC125	8-759-710-07	s IC NJM2234M
IC126	8-759-987-27	s IC LM1881M
IC127	8-759-111-69	s IC UPC1037HA
IC128	8-759-234-77	s IC TC4586F
IC129	8-759-983-69	s IC LM358PS
IC130	8-759-925-90	s IC SN74HC74NS
IC131	8-759-239-58	s IC TC74HC221AF
IC132	8-759-926-07	s IC SN74HC132NS
IC133	8-759-710-29	s IC NJM2235M
IC134	8-759-980-04	s IC LM311PS
IC137	8-759-603-54	s IC M51271FP
IC138	8-759-710-86	s IC NJM2233BM-T1
IC139	8-759-710-86	s IC NJM2233BM-T1
IC140	8-759-926-07	s IC SN74HC132NS
IC141	8-759-980-04	s IC LM311PS
IC142	8-759-710-62	s IC NJM2246M
IC143	8-759-711-32	s IC NJM2245M
IC144	8-759-711-32	s IC NJM2245M
IC145	8-752-334-55	s IC CXD1175M
IC146	8-752-334-55	s IC CXD1175M
IC147	8-752-334-55	s IC CXD1175M
IC148	8-759-926-82	s IC SN74HC574ANS
IC149	8-759-926-82	s IC SN74HC574ANS
IC150	8-759-926-82	s IC SN74HC574ANS
IC151	8-759-710-29	s IC NJM2235M
IC152	8-759-980-04	s IC LM311PS
IC153	8-759-987-27	s IC LM1881M
IC154	8-759-239-58	s IC TC74HC221AF
IC155	8-759-239-58	s IC TC74HC221AF
IC156	8-759-927-46	s IC SN74HC00NS
IC157	8-759-239-58	s IC TC74HC221AF
IC158	8-759-926-24	s IC SN74HC164NS
IC159	8-759-925-90	s IC SN74HC74NS
IC160	8-759-925-90	s IC SN74HC74NS
IC161	8-759-927-46	s IC SN74HC00NS
IC162	8-759-927-46	s IC SN74HC00NS

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
IC163	8-759-925-90 s	IC SN74HC74NS
IC164	8-759-926-23 s	IC SN74HC163NS
IC165	8-759-926-23 s	IC SN74HC163NS
IC166	8-759-926-23 s	IC SN74HC163NS
IC167	8-759-925-74 s	IC TC74HC04NS
IC168	8-759-925-81 s	IC SN74HC20ANS
IC169	8-759-927-46 s	IC SN74HC00NS
IC170	8-759-925-78 s	IC SN74HC10NS
IC171	8-759-239-58 s	IC TC74HC221AF
IC172	8-759-926-29 s	IC SN74HC175NS
IC173	8-759-926-24 s	IC SN74HC164NS
IC174	8-759-927-46 s	IC SN74HC00NS
IC175	8-759-239-58 s	IC TC74HC221AF
IC176	8-749-901-21 s	IC BX1461
IC177	8-759-908-17 s	IC TL082CPS
IC178	8-759-926-48 s	IC SN74HC244NS
IC179	8-759-926-03 s	IC SN74HC113NS
IC201	8-759-710-29 s	IC NJM2235M
IC202	8-759-710-62 s	IC NJM2246M
IC203	8-759-710-29 s	IC NJM2235M
IC204	8-759-710-62 s	IC NJM2246M
IC205	8-759-710-07 s	IC NJM2234M
IC206	8-759-711-32 s	IC NJM2245M
IC207	8-759-710-29 s	IC NJM2235M
IC208	8-759-710-62 s	IC NJM2246M
IC209	8-759-710-07 s	IC NJM2234M
IC210	8-759-711-32 s	IC NJM2245M
IC211	8-759-710-07 s	IC NJM2234M
IC212	8-759-711-32 s	IC NJM2245M
IC213	8-759-925-74 s	IC TC74HC04NS
IC214	8-759-926-99 s	IC SN74HC4075NS
IC215	8-759-926-99 s	IC SN74HC4075NS
IC216	8-759-925-85 s	IC SN74HC32NS
IC217	8-759-925-82 s	IC SN74HC21NS
IC218	8-759-925-85 s	IC SN74HC32NS
IC219	8-759-925-85 s	IC SN74HC32NS
IC220	8-759-925-82 s	IC SN74HC21NS
IC222	8-752-334-55 s	IC CXD1175M
IC223	8-752-342-61 s	IC CXD2105AQ
IC224	8-759-710-29 s	IC NJM2235M
IC225	8-759-710-07 s	IC NJM2234M
IC226	8-759-987-27 s	IC LM1881M
IC227	8-759-111-69 s	IC UPC1037HA
IC228	8-759-234-77 s	IC TC4S66P
IC229	8-759-983-69 s	IC LM358PS
IC230	8-759-925-90 s	IC SN74HC74NS
IC231	8-759-239-58 s	IC TC74HC221AF
IC232	8-759-926-07 s	IC SN74HC132NS
IC233	8-759-710-29 s	IC NJM2235M
IC234	8-759-980-04 s	IC LM311PS
IC237	8-759-603-54 s	IC M51271FP
IC238	8-759-710-86 s	IC NJM2233BM-T1
IC239	8-759-710-86 s	IC NJM2233BM-T1
IC240	8-759-926-07 s	IC SN74HC132NS
IC241	8-759-980-04 s	IC LM311PS
IC242	8-759-710-62 s	IC NJM2246M
IC243	8-759-711-32 s	IC NJM2245M
IC244	8-759-711-32 s	IC NJM2245M
IC245	8-752-334-55 s	IC CXD1175M

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
IC246	8-752-334-55 s	IC CXD1175M
IC247	8-752-334-55 s	IC CXD1175M
IC248	8-759-926-82 s	IC SN74HC574ANS
IC249	8-759-926-82 s	IC SN74HC574ANS
IC250	8-759-926-82 s	IC SN74HC574ANS
IC251	8-759-710-29 s	IC NJM2235M
IC252	8-759-980-04 s	IC LM311PS
IC253	8-759-987-27 s	IC LM1881M
IC254	8-759-239-58 s	IC TC74HC221AF
IC255	8-759-239-58 s	IC TC74HC221AF
IC256	8-759-927-46 s	IC SN74HC00NS
IC257	8-759-239-58 s	IC TC74HC221AF
IC258	8-759-926-24 s	IC SN74HC164NS
IC259	8-759-925-90 s	IC SN74HC74NS
IC260	8-759-925-90 s	IC SN74HC74NS
IC261	8-759-927-46 s	IC SN74HC00NS
IC262	8-759-927-46 s	IC SN74HC00NS
IC263	8-759-925-90 s	IC SN74HC74NS
IC264	8-759-926-23 s	IC SN74HC163NS
IC265	8-759-926-23 s	IC SN74HC163NS
IC266	8-759-926-23 s	IC SN74HC163NS
IC267	8-759-925-74 s	IC TC74HC04NS
IC268	8-759-925-81 s	IC SN74HC20ANS
IC269	8-759-927-46 s	IC SN74HC00NS
IC270	8-759-925-78 s	IC SN74HC10NS
IC271	8-759-239-58 s	IC TC74HC221AF
IC272	8-759-926-29 s	IC SN74HC175NS
IC273	8-759-926-24 s	IC SN74HC164NS
IC274	8-759-927-46 s	IC SN74HC00NS
IC275	8-759-239-58 s	IC TC74HC221AF
IC276	8-749-901-21 s	IC BX1461
IC277	8-759-908-17 s	IC TL082CPS
IC278	8-759-926-48 s	IC SN74HC244NS
IC279	8-759-926-03 s	IC SN74HC113NS
IC301	8-759-702-08 s	IC NJM360M
IC302	8-759-925-73 s	IC SN74HC03NS
L1	1-412-525-31 s	INDUCTOR 10uH
L2	1-412-525-31 s	INDUCTOR 10uH
L3	1-412-525-31 s	INDUCTOR 10uH
L101	1-408-789-21 s	INDUCTOR CHIP 100UH
L102	1-408-785-21 s	INDUCTOR CHIP 47UH
L103	1-408-785-21 s	INDUCTOR CHIP 47UH
L104	1-408-789-21 s	INDUCTOR CHIP 100UH
L105	1-408-793-21 s	INDUCTOR CHIP 220UH
L111	1-408-797-11 s	INDUCTOR CHIP 470UH
L112	1-408-785-21 s	INDUCTOR CHIP 47UH
L113	1-408-782-11 s	INDUCTOR CHIP 27UH
L114	1-408-785-21 s	INDUCTOR CHIP 47UH
L115	1-408-782-11 s	INDUCTOR CHIP 27UH
L116	1-408-785-21 s	INDUCTOR CHIP 47UH
L117	1-408-785-21 s	INDUCTOR CHIP 47UH
L118	1-408-785-21 s	INDUCTOR CHIP 47UH
L121	1-408-785-21 s	INDUCTOR CHIP 47UH
L122	1-408-785-21 s	INDUCTOR CHIP 47UH
L123	1-408-785-21 s	INDUCTOR CHIP 47UH
L124	1-408-785-21 s	INDUCTOR CHIP 47UH
L125	1-408-785-21 s	INDUCTOR CHIP 47UH
L126	1-408-785-21 s	INDUCTOR CHIP 47UH

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
L131	1-408-793-21	s INDUCTOR CHIP 220UH
L132	1-408-765-21	s INDUCTOR, CHIP 1uH
L201	1-408-789-21	s INDUCTOR CHIP 100UH
L202	1-408-785-21	s INDUCTOR CHIP 47UH
L203	1-408-785-21	s INDUCTOR CHIP 47UH
L204	1-408-789-21	s INDUCTOR CHIP 100UH
L205	1-408-793-21	s INDUCTOR CHIP 220UH
L211	1-408-797-11	s INDUCTOR CHIP 470UH
L212	1-408-785-21	s INDUCTOR CHIP 47UH
L213	1-408-782-11	s INDUCTOR CHIP 27UH
L214	1-408-785-21	s INDUCTOR CHIP 47UH
L215	1-408-782-11	s INDUCTOR CHIP 27UH
L216	1-408-785-21	s INDUCTOR CHIP 47UH
L217	1-408-785-21	s INDUCTOR CHIP 47UH
L218	1-408-785-21	s INDUCTOR CHIP 47UH
L221	1-408-785-21	s INDUCTOR CHIP 47UH
L222	1-408-785-21	s INDUCTOR CHIP 47UH
L223	1-408-785-21	s INDUCTOR CHIP 47UH
L224	1-408-785-21	s INDUCTOR CHIP 47UH
L225	1-408-785-21	s INDUCTOR CHIP 47UH
L226	1-408-785-21	s INDUCTOR CHIP 47UH
L231	1-408-793-21	s INDUCTOR CHIP 220UH
L232	1-408-765-21	s INDUCTOR, CHIP 1uH
L301	1-408-789-21	s INDUCTOR CHIP 100UH
LV101	1-410-286-11	s INDUCTOR, VAR 1uH
LV201	1-410-286-11	s INDUCTOR, VAR 1uH
PS1	1-532-637-00	s LINK, IC 1.0A
PS2	1-532-605-00	s LINK, IC 0.4A
PS3	1-532-637-00	s LINK, IC 1.0A
Q101	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q102	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q103	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q104	8-729-116-64	s TRANSISTOR 2SK508-K51
Q105	8-729-216-22	s TRANSISTOR 2SA1162
Q106	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q107	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q108	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q111	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q112	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q113	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q114	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q115	8-729-216-22	s TRANSISTOR 2SA1162
Q121	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q122	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q123	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q124	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q125	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q131	8-729-216-22	s TRANSISTOR 2SA1162
Q132	8-729-216-22	s TRANSISTOR 2SA1162
Q133	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q134	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q135	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q136	8-729-216-22	s TRANSISTOR 2SA1162
Q137	8-729-216-22	s TRANSISTOR 2SA1162
Q138	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q139	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q140	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q141	8-729-120-28	s TRANSISTOR 2SC1623-L5L6

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
Q151	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q152	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q153	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q154	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q155	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q156	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q157	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q158	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q159	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q160	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q171	8-729-116-64	s TRANSISTOR 2SK508-K51
Q172	8-729-216-22	s TRANSISTOR 2SA1162
Q173	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q174	8-729-116-64	s TRANSISTOR 2SK508-K51
Q175	8-729-216-22	s TRANSISTOR 2SA1162
Q176	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q177	8-729-116-64	s TRANSISTOR 2SK508-K51
Q178	8-729-216-22	s TRANSISTOR 2SA1162
Q179	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q180	8-729-216-22	s TRANSISTOR 2SA1162
Q191	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q192	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q193	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q201	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q202	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q203	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q204	8-729-116-64	s TRANSISTOR 2SK508-K51
Q205	8-729-216-22	s TRANSISTOR 2SA1162
Q206	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q207	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q208	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q211	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q212	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q213	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q214	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q215	8-729-216-22	s TRANSISTOR 2SA1162
Q221	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q222	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q223	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q224	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q225	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q231	8-729-216-22	s TRANSISTOR 2SA1162
Q232	8-729-216-22	s TRANSISTOR 2SA1162
Q233	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q234	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q235	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q236	8-729-216-22	s TRANSISTOR 2SA1162
Q237	8-729-216-22	s TRANSISTOR 2SA1162
Q238	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q239	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q240	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q241	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q251	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q252	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q253	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q254	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q255	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q256	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q257	8-729-120-28	s TRANSISTOR 2SC1623-L5L6

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
Q258	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q259	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q260	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q271	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q272	8-729-216-22 s	TRANSISTOR 2SA1162
Q273	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q274	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q275	8-729-216-22 s	TRANSISTOR 2SA1162
Q276	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q277	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q278	8-729-216-22 s	TRANSISTOR 2SA1162
Q279	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q280	8-729-216-22 s	TRANSISTOR 2SA1162
Q291	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q292	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q293	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q301	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q302	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q303	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q304	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q305	8-729-216-22 s	TRANSISTOR 2SA1162
Q306	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q307	8-729-112-65 s	TRANSISTOR 2SA1462-V33
R1	△ 1-216-377-11 s	METAL 4.7 5% 2W
R2	△ 1-216-377-11 s	METAL 4.7 5% 2W
R3	1-216-371-00 s	METAL 1.5 5% 2W
R4	1-216-371-00 s	METAL 1.5 5% 2W
R5	1-216-377-11 s	METAL 4.7 5% 2W
R12	1-216-695-11 s	METAL, CHIP 68K 0.5% 1/10W
R13	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R14	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R16	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R19	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R22	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R23	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R30	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R32	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R41	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R42	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R47	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R48	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R49	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R105	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R106	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R107	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R108	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R109	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R115	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R116	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R117	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R118	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R119	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R125	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R126	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R127	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R128	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R129	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R135	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R136	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R137	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R138	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R139	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R145	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R146	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R147	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R148	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R149	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R155	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R156	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R157	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R158	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R159	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R205	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R206	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R207	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R208	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R209	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R215	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R216	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R217	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R218	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R219	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R225	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R226	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R227	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R228	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R229	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R235	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R236	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R237	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R238	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R239	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R245	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R246	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R247	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R248	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R249	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R255	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R256	1-216-603-11 s	METAL, CHIP 10 0.5% 1/10W
R257	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R258	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R259	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R302	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R304	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R305	1-216-611-11 s	METAL, CHIP 22 0.5% 1/10W
R306	1-216-611-11 s	METAL, CHIP 22 0.5% 1/10W
R308	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R309	1-216-639-11 s	METAL, CHIP 330 0.5% 1/10W
R310	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R311	1-216-673-11 s	METAL, CHIP 8.2K 0.5% 1/10W
R313	1-216-695-11 s	METAL, CHIP 68K 0.5% 1/10W
R314	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R315	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R316	1-216-687-11 s	METAL, CHIP 33K 0.5% 1/10W
R318	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R319	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R320	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R324	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R325	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R327	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R328	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R330	1-218-776-11	s METAL 1M 0.5% 1/10W
R331	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R336	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R337	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R338	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R339	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R342	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R346	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R349	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R350	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R356	1-218-772-11	s METAL 680K 0.5% 1/10W
R357	1-216-681-11	s METAL, CHIP 18K 0.5% 1/10W
R359	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R361	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R362	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R365	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R366	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R368	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R369	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R370	1-218-760-11	s METAL 220K 0.5% 1/10W
R372	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R373	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R384	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R389	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R402	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R404	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R405	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R406	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R408	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R409	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R410	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R411	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R413	1-216-695-11	s METAL, CHIP 68K 0.5% 1/10W
R414	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R415	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R416	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R418	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R419	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R420	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R424	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R425	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R427	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R428	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R430	1-218-776-11	s METAL 1M 0.5% 1/10W
R431	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R436	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R437	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R438	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R439	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R442	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R446	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R449	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R450	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R456	1-218-772-11	s METAL 680K 0.5% 1/10W
R457	1-216-681-11	s METAL, CHIP 18K 0.5% 1/10W

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R459	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R461	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R462	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R465	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R466	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R468	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R469	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R470	1-218-760-11	s METAL 220K 0.5% 1/10W
R472	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R473	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R484	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R489	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R501	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R502	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R506	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R510	1-218-760-11	s METAL 220K 0.5% 1/10W
R513	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R514	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R515	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R516	1-216-609-11	s METAL, CHIP 18 0.5% 1/10W
R517	1-216-634-11	s METAL, CHIP 200 0.5% 1/10W
R518	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R522	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R523	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R524	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R526	1-216-653-11	s METAL, CHIP 1.2K 0.5% 1/10W
R534	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R540	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R541	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R543	1-218-768-11	s METAL 470K 0.5% 1/10W
R544	1-216-619-11	s METAL, CHIP 47 0.5% 1/10W
R545	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R546	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R547	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R548	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R550	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R552	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R553	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R558	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R560	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R563	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R566	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R570	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R572	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R578	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R581	1-218-776-11	s METAL 1M 0.5% 1/10W
R584	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R588	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R589	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R595	1-218-764-11	s METAL 330K 0.5% 1/10W
R601	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R602	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R606	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R610	1-218-760-11	s METAL 220K 0.5% 1/10W
R613	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R614	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R615	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R616	1-216-609-11	s METAL, CHIP 18 0.5% 1/10W
R617	1-216-634-11	s METAL, CHIP 200 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R618	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R622	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R623	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R624	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R626	1-216-653-11 s	METAL, CHIP 1.2K 0.5% 1/10W
R634	1-216-697-11 s	METAL, CHIP 82K 0.5% 1/10W
R640	1-216-673-11 s	METAL, CHIP 8.2K 0.5% 1/10W
R641	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R643	1-218-768-11 s	METAL 470K 0.5% 1/10W
R644	1-216-619-11 s	METAL, CHIP 47 0.5% 1/10W
R645	1-216-639-11 s	METAL, CHIP 330 0.5% 1/10W
R646	1-216-685-11 s	METAL, CHIP 27K 0.5% 1/10W
R647	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R648	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R650	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R652	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R653	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R658	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R660	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R663	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R666	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R670	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R672	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R678	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R681	1-218-776-11 s	METAL 1M 0.5% 1/10W
R684	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R688	1-216-697-11 s	METAL, CHIP 82K 0.5% 1/10W
R689	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R695	1-218-764-11 s	METAL 330K 0.5% 1/10W
R702	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R704	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R705	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R706	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R707	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R711	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R714	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R720	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R723	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R725	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R727	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R729	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R740	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R743	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R745	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R747	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R749	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R751	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R752	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R753	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
R754	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R755	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R756	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R757	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R758	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R759	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R761	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
R766	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R767	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R768	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R769	1-216-689-11 s	METAL, CHIP 39K 0.5% 1/10W
R770	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R771	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R772	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R773	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R775	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R786	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R787	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R788	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R789	1-216-689-11 s	METAL, CHIP 39K 0.5% 1/10W
R790	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R791	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R792	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R793	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R795	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R798	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R802	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R804	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R805	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R806	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R807	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R811	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R814	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R820	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R823	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R825	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R827	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R829	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R840	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R843	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R845	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R847	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R849	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R851	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R852	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R853	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
R854	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R855	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R856	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R857	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R858	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R859	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R861	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
R866	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R867	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R868	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R869	1-216-689-11 s	METAL, CHIP 39K 0.5% 1/10W
R870	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R871	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R872	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R873	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R875	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R886	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R887	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R888	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R889	1-216-689-11 s	METAL, CHIP 39K 0.5% 1/10W
R890	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R891	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R892	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R893	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R895	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R898	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R904	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R905	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R913	1-218-764-11	s METAL 330K 0.5% 1/10W
R917	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R919	1-218-772-11	s METAL 680K 0.5% 1/10W
R920	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R921	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R924	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R925	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R936	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R937	1-218-754-11	s METAL, CHIP 120K 0.50% 1/10W
R941	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R942	1-218-760-11	s METAL 220K 0.5% 1/10W
R944	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R949	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R950	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R951	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R952	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R953	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R954	1-218-760-11	s METAL 220K 0.5% 1/10W
R955	1-218-764-11	s METAL 330K 0.5% 1/10W
R956	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R957	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R958	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R1013	1-218-764-11	s METAL 330K 0.5% 1/10W
R1017	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R1019	1-218-772-11	s METAL 680K 0.5% 1/10W
R1020	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R1021	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R1024	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R1025	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R1036	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R1037	1-218-754-11	s METAL, CHIP 120K 0.50% 1/10W
R1041	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R1042	1-218-760-11	s METAL 220K 0.5% 1/10W
R1043	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R1044	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R1049	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R1050	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R1051	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R1052	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R1053	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R1054	1-218-760-11	s METAL 220K 0.5% 1/10W
R1055	1-218-764-11	s METAL 330K 0.5% 1/10W
R1056	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R1057	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R1058	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
RB1	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB2	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB3	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB101	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB102	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB103	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RV101	1-228-993-00	s RES, ADJ METAL 4.7K
RV102	1-228-993-00	s RES, ADJ METAL 4.7K

(AD-76 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
RV103	1-228-994-00	s RES, ADJ METAL 10K
RV111	1-230-504-11	s RES, ADJ METAL 220
RV112	1-228-990-00	s RES, ADJ METAL 1K
RV113	1-228-993-00	s RES, ADJ METAL 4.7K
RV114	1-228-989-00	s RES, ADJ METAL 470
RV115	1-228-989-00	s RES, ADJ METAL 470
RV116	1-228-990-00	s RES, ADJ METAL 1K
RV117	1-230-504-11	s RES, ADJ METAL 220
RV118	1-228-989-00	s RES, ADJ METAL 470
RV119	1-228-989-00	s RES, ADJ METAL 470
RV121	1-228-989-00	s RES, ADJ METAL 470
RV122	1-228-989-00	s RES, ADJ METAL 470
RV123	1-228-989-00	s RES, ADJ METAL 470
RV131	1-228-993-00	s RES, ADJ METAL 4.7K
RV201	1-228-993-00	s RES, ADJ METAL 4.7K
RV202	1-228-993-00	s RES, ADJ METAL 4.7K
RV203	1-228-994-00	s RES, ADJ METAL 10K
RV211	1-230-504-11	s RES, ADJ METAL 220
RV212	1-228-990-00	s RES, ADJ METAL 1K
RV213	1-228-993-00	s RES, ADJ METAL 4.7K
RV214	1-228-989-00	s RES, ADJ METAL 470
RV215	1-228-989-00	s RES, ADJ METAL 470
RV216	1-228-990-00	s RES, ADJ METAL 1K
RV217	1-230-504-11	s RES, ADJ METAL 220
RV218	1-228-989-00	s RES, ADJ METAL 470
RV219	1-228-989-00	s RES, ADJ METAL 470
RV221	1-228-989-00	s RES, ADJ METAL 470
RV222	1-228-989-00	s RES, ADJ METAL 470
RV223	1-228-989-00	s RES, ADJ METAL 470
RV231	1-228-993-00	s RES, ADJ METAL 4.7K
RV301	1-237-503-21	s RES, ADJ METAL 10K
RV302	1-228-990-00	s RES, ADJ METAL 1K
S1	1-570-514-11	s SWITCH, SLIDE
S2	1-570-514-11	s SWITCH, SLIDE
S3	1-570-514-11	s SWITCH, SLIDE
S4	1-570-514-11	s SWITCH, SLIDE
X101	1-577-089-11	s VCO, CRYSTAL 14.318180MHz
X102	1-567-866-11	s CRYSTAL, 14.31818MHz
X201	1-577-089-11	s VCO, CRYSTAL 14.318180MHz
X202	1-567-866-11	s CRYSTAL, 14.31818MHz

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## AD-76P BOARD used for DFS-500P

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-697-A	o MOUNTED CIRCUIT BOARD, AD-76P
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
C1	1-126-934-11	s ELECT 220uF 20% 16V
C2	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C3	1-126-934-11	s ELECT 220uF 20% 16V
C4	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C5	1-126-934-11	s ELECT 220uF 20% 16V
C6	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C7	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C8	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C9	1-126-934-11	s ELECT 220uF 20% 16V
C10	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C11	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C12	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C13	1-126-934-11	s ELECT 220uF 20% 16V
C14	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C15	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C16	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C17	1-126-934-11	s ELECT 220uF 20% 16V
C18	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C19	1-126-934-11	s ELECT 220uF 20% 16V
C20	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C21	1-126-934-11	s ELECT 220uF 20% 16V
C22	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C23	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C24	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C25	1-126-925-11	s ELECT 470uF 20% 10V
C26	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C27	1-126-925-11	s ELECT 470uF 20% 10V
C28	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C31	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C35	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C36	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C37	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C39	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C41	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C101	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C102	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C103	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C104	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C105	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C106	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C107	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C109	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C110	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C111	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C112	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C113	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C114	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C115	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C117	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C118	1-126-394-11	s ELECT, CHIP 10uF 20% 16V

## (AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C119	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C120	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C121	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C122	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C123	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C125	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C126	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C127	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C128	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C129	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C130	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C131	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C133	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C134	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C135	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C136	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C137	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C138	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C139	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C141	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C142	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C143	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C144	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C145	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C146	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C147	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C201	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C202	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C203	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C204	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C205	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C206	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C207	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C209	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C210	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C211	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C212	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C213	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C214	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C215	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C217	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C218	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C219	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C220	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C221	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C222	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C223	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C225	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C226	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C227	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C228	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C229	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C230	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C231	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C233	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C234	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C235	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C236	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C237	1-126-394-11	s ELECT, CHIP 10uF 20% 16V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C238	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C239	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C241	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C242	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C243	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C244	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C245	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C246	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C247	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C301	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C302	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C304	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C305	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C306	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C307	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C309	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C310	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C311	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C312	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C313	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C318	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C319	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C321	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C332	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C341	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C342	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C343	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C344	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C347	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C351	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C352	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C353	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C355	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C359	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C361	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C363	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C366	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C367	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C370	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C371	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C382	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C383	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C385	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C386	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C387	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C388	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C401	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C402	1-163-222-11	s CERAMIC, CHIP 5PF 50V
C404	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C405	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C406	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C407	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C409	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C410	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C411	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C412	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C413	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C418	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C419	1-126-394-11	s ELECT, CHIP 10uF 20% 16V

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C421	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C432	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C441	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C442	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C443	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C444	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C447	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C451	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C452	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C453	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C455	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C459	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C461	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C463	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C466	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C467	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C470	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C471	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C482	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C483	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C485	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C486	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C487	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C488	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C501	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C502	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C507	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C508	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C510	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C521	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C523	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C524	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C525	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C526	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C527	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C528	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C529	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C530	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C531	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C534	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C536	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C537	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C539	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C540	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C541	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C542	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C543	1-163-089-00	s CERAMIC, CHIP 6PF 50V
C544	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C545	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C546	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C547	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C548	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C560	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C563	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C565	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C566	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C571	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C572	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C575	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C576	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C585	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C586	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C587	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C588	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C589	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C590	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C592	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C593	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C594	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C595	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C601	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C602	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C607	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C608	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C610	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C621	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C623	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C624	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C625	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C626	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C627	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C628	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C629	1-163-035-00	s CERAMIC, CHIP 0.047uF 50V
C630	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C631	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C634	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C636	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C637	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C639	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C640	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C641	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C642	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C643	1-163-089-00	s CERAMIC, CHIP 6PF 50V
C644	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C645	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C646	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C647	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C648	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C660	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C663	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C665	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C666	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C671	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C672	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C675	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C676	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C685	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C686	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C687	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C688	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C689	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C690	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C692	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C693	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C694	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C695	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C701	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C702	1-126-396-11	s ELECT, CHIP 47uF 20% 16V

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C703	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C704	1-163-087-00	s CERAMIC, CHIP 4PF 50V
C720	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C740	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C751	1-104-601-21	s ELECT 10uF 20% 10V
C752	1-104-601-21	s ELECT 10uF 20% 10V
C753	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C756	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C757	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C759	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C760	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C763	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C764	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C765	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C766	1-104-601-21	s ELECT 10uF 20% 10V
C767	1-104-601-21	s ELECT 10uF 20% 10V
C770	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C771	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C773	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C774	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C777	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C778	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C779	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C786	1-104-601-21	s ELECT 10uF 20% 10V
C787	1-104-601-21	s ELECT 10uF 20% 10V
C790	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C791	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C793	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C794	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C797	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C798	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C799	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C801	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C802	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C803	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C804	1-163-087-00	s CERAMIC, CHIP 4PF 50V
C820	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C840	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C851	1-104-601-21	s ELECT 10uF 20% 10V
C852	1-104-601-21	s ELECT 10uF 20% 10V
C853	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C856	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C857	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C859	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C860	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C863	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C864	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C865	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C866	1-104-601-21	s ELECT 10uF 20% 10V
C867	1-104-601-21	s ELECT 10uF 20% 10V
C870	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C871	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C873	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C874	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C877	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C878	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C879	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C886	1-104-601-21	s ELECT 10uF 20% 10V
C887	1-104-601-21	s ELECT 10uF 20% 10V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C890	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C891	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C893	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C894	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C897	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C898	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C899	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C901	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C902	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C908	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C909	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C911	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C915	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C916	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C918	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C919	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C922	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C923	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C927	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C930	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C939	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C944	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C945	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C946	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C952	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C953	1-163-137-00	s CERAMIC, CHIP 680PF 5% 50V
C954	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C955	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C956	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C957	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V
C958	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C961	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C962	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C963	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C965	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C968	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
C1001	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C1002	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C1008	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1009	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1011	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C1015	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1016	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1018	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1019	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C1022	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1023	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C1027	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1030	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C1039	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C1044	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1045	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C1046	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1052	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C1053	1-163-137-00	s CERAMIC, CHIP 680PF 5% 50V
C1054	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1055	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C1056	1-126-394-11	s ELECT, CHIP 10uF 20% 16V
C1057	1-164-005-11	s CERAMIC, CHIP 0.47uF 25V

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C1058	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1061	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C1062	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C1063	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C1065	1-163-275-11	s CERAMIC, CHIP 0.001uF 5% 50V
C1068	1-163-239-11	s CERAMIC, CHIP 33PF 5% 50V
CN19	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN20	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN21	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CV101	1-141-229-00	s CAP, TRIMMER 7PF
CV201	1-141-229-00	s CAP, TRIMMER 7PF
D101	8-719-104-34	s DIODE 1S2835
D102	8-719-104-34	s DIODE 1S2835
D103	8-719-104-34	s DIODE 1S2835
D106	8-719-104-34	s DIODE 1S2835
D107	8-719-104-34	s DIODE 1S2835
D111	8-719-104-34	s DIODE 1S2835
D112	8-719-104-34	s DIODE 1S2835
D113	8-719-104-34	s DIODE 1S2835
D121	8-719-104-34	s DIODE 1S2835
D122	8-719-104-34	s DIODE 1S2835
D123	8-719-105-57	s DIODE RD3.9M-B1
D124	8-719-157-23	s DIODE RD4.7M-B
D125	8-719-915-43	s DIODE, VARICAP FC54M
D126	8-719-915-43	s DIODE, VARICAP FC54M
D201	8-719-104-34	s DIODE 1S2835
D202	8-719-104-34	s DIODE 1S2835
D203	8-719-104-34	s DIODE 1S2835
D206	8-719-104-34	s DIODE 1S2835
D207	8-719-104-34	s DIODE 1S2835
D211	8-719-104-34	s DIODE 1S2835
D212	8-719-104-34	s DIODE 1S2835
D213	8-719-104-34	s DIODE 1S2835
D221	8-719-104-34	s DIODE 1S2835
D222	8-719-104-34	s DIODE 1S2835
D223	8-719-105-57	s DIODE RD3.9M-B1
D224	8-719-157-23	s DIODE RD4.7M-B
D225	8-719-915-43	s DIODE, VARICAP FC54M
D226	8-719-915-43	s DIODE, VARICAP FC54M
D301	8-719-104-34	s DIODE 1S2835
DL101	1-415-348-21	s DELAY LINE 280NS
DL102	1-415-309-00	s DELAY LINE 350nS
DL103	1-415-348-21	s DELAY LINE 280NS
DL201	1-415-348-21	s DELAY LINE 280NS
DL202	1-415-309-00	s DELAY LINE 350nS
DL203	1-415-348-21	s DELAY LINE 280NS
FL101	1-239-085-11	s FILTER, LOW-PASS
FL102	1-239-085-11	s FILTER, LOW-PASS
FL103	1-239-085-11	s FILTER, LOW-PASS
FL111	1-235-758-11	s FILTER, LOW-PASS
FL112	1-235-758-11	s FILTER, LOW-PASS
FL113	1-239-085-11	s FILTER, LOW-PASS
FL114	1-235-758-11	s FILTER, LOW-PASS
FL115	1-235-758-11	s FILTER, LOW-PASS
FL201	1-239-085-11	s FILTER, LOW-PASS
FL202	1-239-085-11	s FILTER, LOW-PASS

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
FL203	1-239-085-11	s FILTER, LOW-PASS
FL211	1-235-758-11	s FILTER, LOW-PASS
FL212	1-235-758-11	s FILTER, LOW-PASS
FL213	1-239-085-11	s FILTER, LOW-PASS
FL214	1-235-758-11	s FILTER, LOW-PASS
FL215	1-235-758-11	s FILTER, LOW-PASS
IC1	8-759-231-53	s IC TA7805S
IC2	8-759-520-06	s IC NJM7809FA
IC3	8-759-520-06	s IC NJM7809FA
IC4	8-759-701-87	s IC NJM7909FA
IC101	8-759-710-29	s IC NJM2235M
IC102	8-759-710-62	s IC NJM2246M
IC103	8-759-710-29	s IC NJM2235M
IC104	8-759-710-62	s IC NJM2246M
IC105	8-759-710-07	s IC NJM2234M
IC106	8-759-711-32	s IC NJM2245M
IC107	8-759-710-29	s IC NJM2235M
IC108	8-759-710-62	s IC NJM2246M
IC109	8-759-710-07	s IC NJM2234M
IC110	8-759-711-32	s IC NJM2245M
IC111	8-759-710-07	s IC NJM2234M
IC112	8-759-711-32	s IC NJM2245M
IC113	8-759-925-74	s IC TC74HC04NS
IC114	8-759-926-99	s IC SN74HC4075NS
IC115	8-759-926-99	s IC SN74HC4075NS
IC116	8-759-925-85	s IC SN74HC32NS
IC117	8-759-925-82	s IC SN74HC21NS
IC118	8-759-925-85	s IC SN74HC32NS
IC119	8-759-925-85	s IC SN74HC32NS
IC120	8-759-925-82	s IC SN74HC21NS
IC121	8-759-925-74	s IC TC74HC04NS
IC122	8-752-334-55	s IC CXD1175M
IC123	8-752-342-61	s IC CXD2105AQ
IC124	8-759-710-29	s IC NJM2235M
IC125	8-759-710-07	s IC NJM2234M
IC126	8-759-987-27	s IC LM1881M
IC127	8-759-111-69	s IC UPC1037HA
IC128	8-759-234-77	s IC TC4S66F
IC129	8-759-983-69	s IC LM358PS
IC130	8-759-925-90	s IC SN74HC74NS
IC131	8-759-239-58	s IC TC74HC221AF
IC132	8-759-926-07	s IC SN74HC132NS
IC133	8-759-710-29	s IC NJM2235M
IC134	8-759-980-04	s IC LM311PS
IC135	8-759-239-58	s IC TC74HC221AF
IC136	8-759-038-46	s IC TC7500F-TE85L
IC137	8-759-603-54	s IC M51271FP
IC138	8-759-710-86	s IC NJM2233BM-T1
IC139	8-759-710-86	s IC NJM2233BM-T1
IC140	8-759-926-07	s IC SN74HC132NS
IC141	8-759-980-04	s IC LM311PS
IC142	8-759-710-62	s IC NJM2246M
IC143	8-759-711-32	s IC NJM2245M
IC144	8-759-711-32	s IC NJM2245M
IC145	8-752-334-55	s IC CXD1175M
IC146	8-752-334-55	s IC CXD1175M
IC147	8-752-334-55	s IC CXD1175M
IC148	8-759-926-82	s IC SN74HC574ANS

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
IC149	8-759-926-82	s IC SN74HC574ANS
IC150	8-759-926-82	s IC SN74HC574ANS
IC151	8-759-710-29	s IC NJM2235M
IC152	8-759-980-04	s IC LM311PS
IC153	8-759-987-27	s IC LM1881M
IC154	8-759-239-58	s IC TC74HC221AF
IC155	8-759-239-58	s IC TC74HC221AF
IC156	8-759-927-46	s IC SN74HC00NS
IC157	8-759-239-58	s IC TC74HC221AF
IC158	8-759-926-24	s IC SN74HC164NS
IC159	8-759-925-90	s IC SN74HC74NS
IC160	8-759-925-90	s IC SN74HC74NS
IC161	8-759-927-46	s IC SN74HC00NS
IC162	8-759-927-46	s IC SN74HC00NS
IC163	8-759-925-90	s IC SN74HC74NS
IC164	8-759-926-23	s IC SN74HC163NS
IC165	8-759-926-23	s IC SN74HC163NS
IC166	8-759-926-23	s IC SN74HC163NS
IC167	8-759-925-74	s IC TC74HC04NS
IC168	8-759-925-81	s IC SN74HC20ANS
IC169	8-759-927-46	s IC SN74HC00NS
IC170	8-759-925-78	s IC SN74HC10NS
IC171	8-759-239-58	s IC TC74HC221AF
IC172	8-759-926-29	s IC SN74HC175NS
IC173	8-759-926-24	s IC SN74HC164NS
IC174	8-759-927-46	s IC SN74HC00NS
IC175	8-759-239-58	s IC TC74HC221AF
IC176	8-749-901-21	s IC BX1461
IC177	8-759-908-17	s IC TL082CPS
IC178	8-759-926-48	s IC SN74HC244NS
IC179	8-759-926-03	s IC SN74HC113NS
IC201	8-759-710-29	s IC NJM2235M
IC202	8-759-710-62	s IC NJM2246M
IC203	8-759-710-29	s IC NJM2235M
IC204	8-759-710-62	s IC NJM2246M
IC205	8-759-710-07	s IC NJM2234M
IC206	8-759-711-32	s IC NJM2245M
IC207	8-759-710-29	s IC NJM2235M
IC208	8-759-710-62	s IC NJM2246M
IC209	8-759-710-07	s IC NJM2234M
IC210	8-759-711-32	s IC NJM2245M
IC211	8-759-710-07	s IC NJM2234M
IC212	8-759-711-32	s IC NJM2245M
IC213	8-759-925-74	s IC TC74HC04NS
IC214	8-759-926-99	s IC SN74HC4075NS
IC215	8-759-926-99	s IC SN74HC4075NS
IC216	8-759-925-85	s IC SN74HC32NS
IC217	8-759-925-82	s IC SN74HC21NS
IC218	8-759-925-85	s IC SN74HC32NS
IC219	8-759-925-85	s IC SN74HC32NS
IC220	8-759-925-82	s IC SN74HC21NS
IC222	8-752-334-55	s IC CXD1175M
IC223	8-752-342-61	s IC CXD2105AQ
IC224	8-759-710-29	s IC NJM2235M
IC225	8-759-710-07	s IC NJM2234M
IC226	8-759-987-27	s IC LM1881M
IC227	8-759-111-69	s IC UPC1037HA
IC228	8-759-234-77	s IC TC4S66F
IC229	8-759-983-69	s IC LM358PS

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
IC230	8-759-925-90	s IC SN74HC74NS
IC231	8-759-239-58	s IC TC74HC221AF
IC232	8-759-926-07	s IC SN74HC132NS
IC233	8-759-710-29	s IC NJM2235M
IC234	8-759-980-04	s IC LM311PS
IC235	8-759-239-58	s IC TC74HC221AF
IC236	8-759-038-46	s IC TC7S00P-TE85L
IC237	8-759-603-54	s IC M51271FP
IC238	8-759-710-86	s IC NJM2233BM-T1
IC239	8-759-710-86	s IC NJM2233BM-T1
IC240	8-759-926-07	s IC SN74HC132NS
IC241	8-759-980-04	s IC LM311PS
IC242	8-759-710-62	s IC NJM2246M
IC243	8-759-711-32	s IC NJM2245M
IC244	8-759-711-32	s IC NJM2245M
IC245	8-752-334-55	s IC CXD1175M
IC246	8-752-334-55	s IC CXD1175M
IC247	8-752-334-55	s IC CXD1175M
IC248	8-759-926-82	s IC SN74HC574ANS
IC249	8-759-926-82	s IC SN74HC574ANS
IC250	8-759-926-82	s IC SN74HC574ANS
IC251	8-759-710-29	s IC NJM2235M
IC252	8-759-980-04	s IC LM311PS
IC253	8-759-987-27	s IC LM1881M
IC254	8-759-239-58	s IC TC74HC221AF
IC255	8-759-239-58	s IC TC74HC221AF
IC256	8-759-927-46	s IC SN74HC00NS
IC257	8-759-239-58	s IC TC74HC221AF
IC258	8-759-926-24	s IC SN74HC164NS
IC259	8-759-925-90	s IC SN74HC74NS
IC260	8-759-925-90	s IC SN74HC74NS
IC261	8-759-927-46	s IC SN74HC00NS
IC262	8-759-927-46	s IC SN74HC00NS
IC263	8-759-925-90	s IC SN74HC74NS
IC264	8-759-926-23	s IC SN74HC163NS
IC265	8-759-926-23	s IC SN74HC163NS
IC266	8-759-926-23	s IC SN74HC163NS
IC267	8-759-925-74	s IC TC74HC04NS
IC268	8-759-925-81	s IC SN74HC20ANS
IC269	8-759-927-46	s IC SN74HC00NS
IC270	8-759-925-78	s IC SN74HC10NS
IC271	8-759-239-58	s IC TC74HC221AF
IC272	8-759-926-29	s IC SN74HC175NS
IC273	8-759-926-24	s IC SN74HC164NS
IC274	8-759-927-46	s IC SN74HC00NS
IC275	8-759-239-58	s IC TC74HC221AF
IC276	8-749-901-21	s IC BX1461
IC277	8-759-908-17	s IC TL082CPS
IC278	8-759-926-48	s IC SN74HC244NS
IC279	8-759-926-03	s IC SN74HC113NS
IC301	8-759-702-08	s IC NJM360M
IC302	8-759-925-73	s IC SN74HC03NS
L1	1-412-525-31	s INDUCTOR 10uH
L2	1-412-525-31	s INDUCTOR 10uH
L3	1-412-525-31	s INDUCTOR 10uH
L101	1-408-789-21	s INDUCTOR CHIP 100UH
L102	1-408-785-21	s INDUCTOR CHIP 47UH
L103	1-408-785-21	s INDUCTOR CHIP 47UH

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
L104	1-408-789-21	s INDUCTOR CHIP 100UH
L105	1-408-793-21	s INDUCTOR CHIP 220UH
L111	1-408-797-11	s INDUCTOR CHIP 470UH
L112	1-408-785-21	s INDUCTOR CHIP 47UH
L113	1-408-782-11	s INDUCTOR CHIP 27UH
L114	1-408-785-21	s INDUCTOR CHIP 47UH
L115	1-408-782-11	s INDUCTOR CHIP 27UH
L116	1-408-785-21	s INDUCTOR CHIP 47UH
L117	1-408-785-21	s INDUCTOR CHIP 47UH
L118	1-408-785-21	s INDUCTOR CHIP 47UH
L121	1-408-785-21	s INDUCTOR CHIP 47UH
L122	1-408-785-21	s INDUCTOR CHIP 47UH
L123	1-408-785-21	s INDUCTOR CHIP 47UH
L124	1-408-785-21	s INDUCTOR CHIP 47UH
L125	1-408-785-21	s INDUCTOR CHIP 47UH
L126	1-408-785-21	s INDUCTOR CHIP 47UH
L131	1-408-793-21	s INDUCTOR CHIP 220UH
L132	1-408-785-21	s INDUCTOR, CHIP 1uH
L201	1-408-789-21	s INDUCTOR CHIP 100UH
L202	1-408-785-21	s INDUCTOR CHIP 47UH
L203	1-408-785-21	s INDUCTOR CHIP 47UH
L204	1-408-789-21	s INDUCTOR CHIP 100UH
L205	1-408-793-21	s INDUCTOR CHIP 220UH
L211	1-408-797-11	s INDUCTOR CHIP 470UH
L212	1-408-785-21	s INDUCTOR CHIP 47UH
L213	1-408-782-11	s INDUCTOR CHIP 27UH
L214	1-408-785-21	s INDUCTOR CHIP 47UH
L215	1-408-782-11	s INDUCTOR CHIP 27UH
L216	1-408-785-21	s INDUCTOR CHIP 47UH
L217	1-408-785-21	s INDUCTOR CHIP 47UH
L218	1-408-785-21	s INDUCTOR CHIP 47UH
L221	1-408-785-21	s INDUCTOR CHIP 47UH
L222	1-408-785-21	s INDUCTOR CHIP 47UH
L223	1-408-785-21	s INDUCTOR CHIP 47UH
L224	1-408-785-21	s INDUCTOR CHIP 47UH
L225	1-408-785-21	s INDUCTOR CHIP 47UH
L226	1-408-785-21	s INDUCTOR CHIP 47UH
L231	1-408-793-21	s INDUCTOR CHIP 220UH
L232	1-408-765-21	s INDUCTOR, CHIP 1uH
L301	1-408-789-21	s INDUCTOR CHIP 100UH
LV101	1-410-286-11	s INDUCTOR, VAR 1uH
LV201	1-410-286-11	s INDUCTOR, VAR 1uH
PS1	△1-532-637-00	s LINK, IC 1.0A
PS2	△1-532-605-00	s LINK, IC 0.4A
PS3	△1-532-637-00	s LINK, IC 1.0A
Q101	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q102	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q103	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q104	8-729-116-64	s TRANSISTOR 2SK508-K51
Q105	8-729-216-22	s TRANSISTOR 2SA1162
Q106	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q107	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q108	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q111	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q112	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q113	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q114	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q115	8-729-216-22	s TRANSISTOR 2SA1162

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP	Description
Q121	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q122	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q123	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q124	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q125	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q131	8-729-216-22	s	TRANSISTOR 2SA1162
Q132	8-729-216-22	s	TRANSISTOR 2SA1162
Q133	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q134	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q135	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q136	8-729-216-22	s	TRANSISTOR 2SA1162
Q137	8-729-216-22	s	TRANSISTOR 2SA1162
Q138	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q139	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q140	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q141	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q151	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q152	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q153	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q154	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q155	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q156	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q157	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q158	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q159	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q160	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q171	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q172	8-729-216-22	s	TRANSISTOR 2SA1162
Q173	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q174	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q175	8-729-216-22	s	TRANSISTOR 2SA1162
Q176	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q177	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q178	8-729-216-22	s	TRANSISTOR 2SA1162
Q179	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q180	8-729-216-22	s	TRANSISTOR 2SA1162
Q191	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q192	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q193	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q201	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q202	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q203	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q204	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q205	8-729-216-22	s	TRANSISTOR 2SA1162
Q206	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q207	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q208	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q211	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q212	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q213	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q214	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q215	8-729-216-22	s	TRANSISTOR 2SA1162
Q221	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q222	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q223	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q224	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q225	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q231	8-729-216-22	s	TRANSISTOR 2SA1162
Q232	8-729-216-22	s	TRANSISTOR 2SA1162

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP	Description
Q233	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q234	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q235	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q236	8-729-216-22	s	TRANSISTOR 2SA1162
Q237	8-729-216-22	s	TRANSISTOR 2SA1162
Q238	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q239	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q240	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q241	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q251	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q252	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q253	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q254	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q255	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q256	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q257	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q258	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q259	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q260	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q271	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q272	8-729-216-22	s	TRANSISTOR 2SA1162
Q273	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q274	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q275	8-729-216-22	s	TRANSISTOR 2SA1162
Q276	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q277	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q278	8-729-216-22	s	TRANSISTOR 2SA1162
Q279	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q280	8-729-216-22	s	TRANSISTOR 2SA1162
Q291	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q292	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q293	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q301	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q302	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q303	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q304	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q305	8-729-216-22	s	TRANSISTOR 2SA1162
Q306	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q307	8-729-112-65	s	TRANSISTOR 2SA1462-Y33
R1	A1-216-377-11	s	METAL 4.7 5% 2W
R2	A1-216-377-11	s	METAL 4.7 5% 2W
R3	1-216-371-00	s	METAL 1.5 5% 2W
R4	1-216-371-00	s	METAL 1.5 5% 2W
R5	1-216-377-11	s	METAL 4.7 5% 2W
R12	1-216-695-11	s	METAL, CHIP 68K 0.5% 1/10W
R13	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R14	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R16	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R19	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R22	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R23	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R30	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R32	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R41	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R42	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R47	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R48	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R49	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R105	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R106	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R107	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R108	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R109	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R115	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R116	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R117	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R118	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R119	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R125	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R126	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R127	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R128	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R129	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R135	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R136	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R137	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R138	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R139	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R145	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R146	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R147	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R148	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R149	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R155	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R156	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R157	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R158	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R159	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R205	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R206	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R207	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R208	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R209	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R215	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R216	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R217	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R218	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R219	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R225	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R226	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R227	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R228	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R229	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R235	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R236	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R237	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R238	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R239	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R245	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R246	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R247	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R248	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R249	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R255	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R256	1-216-603-11	s METAL, CHIP 10 0.5% 1/10W
R257	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R258	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R259	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R302	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R304	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R305	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R306	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R308	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R309	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R310	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R311	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R313	1-216-695-11	s METAL, CHIP 68K 0.5% 1/10W
R314	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R315	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R316	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R318	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R319	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R320	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R324	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R325	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R327	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R328	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R330	1-218-776-11	s METAL 1M 0.5% 1/10W
R331	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R336	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R337	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R338	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R339	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R342	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R346	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R349	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R350	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R356	1-218-772-11	s METAL 680K 0.5% 1/10W
R357	1-216-681-11	s METAL, CHIP 18K 0.5% 1/10W
R359	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R361	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R362	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R365	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R366	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R368	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R369	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R370	1-218-760-11	s METAL 220K 0.5% 1/10W
R372	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R373	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R384	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R389	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R402	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R404	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R405	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R406	1-216-611-11	s METAL, CHIP 22 0.5% 1/10W
R408	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R409	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R410	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R411	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R413	1-216-695-11	s METAL, CHIP 68K 0.5% 1/10W
R414	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R415	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R416	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R418	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R419	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R420	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R424	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R425	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R427	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R428	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R430	1-218-776-11	s METAL 1M 0.5% 1/10W
R431	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R436	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R437	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R438	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R439	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R442	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R446	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R449	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R450	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R456	1-218-772-11	s METAL 680K 0.5% 1/10W
R457	1-216-681-11	s METAL, CHIP 18K 0.5% 1/10W
R459	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R461	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R462	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R465	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R466	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R468	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R469	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R470	1-218-760-11	s METAL 220K 0.5% 1/10W
R472	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R473	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R484	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R489	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R501	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R502	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R506	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R510	1-218-760-11	s METAL 220K 0.5% 1/10W
R513	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R514	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R515	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R516	1-216-609-11	s METAL, CHIP 18 0.5% 1/10W
R517	1-216-634-11	s METAL, CHIP 200 0.5% 1/10W
R518	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R522	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R523	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R524	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R526	1-216-653-11	s METAL, CHIP 1.2K 0.5% 1/10W
R531	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R532	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R534	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R540	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R541	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R543	1-218-768-11	s METAL 470K 0.5% 1/10W
R544	1-216-619-11	s METAL, CHIP 47 0.5% 1/10W
R545	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R546	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R547	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R548	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R550	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R552	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R553	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R558	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R560	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R563	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R566	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W

(AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R570	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R572	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R578	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R581	1-218-776-11	s METAL 1M 0.5% 1/10W
R584	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R588	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R589	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R595	1-218-764-11	s METAL 330K 0.5% 1/10W
R601	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R602	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R606	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R610	1-218-760-11	s METAL 220K 0.5% 1/10W
R613	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R614	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R615	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R616	1-216-609-11	s METAL, CHIP 18 0.5% 1/10W
R617	1-216-634-11	s METAL, CHIP 200 0.5% 1/10W
R618	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R622	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R623	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R624	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R626	1-216-653-11	s METAL, CHIP 1.2K 0.5% 1/10W
R631	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R632	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R634	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R640	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R641	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R643	1-218-768-11	s METAL 470K 0.5% 1/10W
R644	1-216-619-11	s METAL, CHIP 47 0.5% 1/10W
R645	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R646	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R647	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R648	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R650	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R652	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R653	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R658	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R660	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R663	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R666	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R670	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R672	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R678	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R681	1-218-776-11	s METAL 1M 0.5% 1/10W
R684	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R688	1-216-697-11	s METAL, CHIP 82K 0.5% 1/10W
R689	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R695	1-218-764-11	s METAL 330K 0.5% 1/10W
R702	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R704	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R705	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R706	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R707	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R711	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R714	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R720	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R723	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R725	1-216-633-11	s METAL, CHIP 180 0.5% 1/10W
R727	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R729	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R740	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R743	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R745	1-216-633-11	s METAL, CHIP 180 0.5% 1/10W
R747	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R749	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R751	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R752	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R753	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R754	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R755	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R756	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R757	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R758	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R759	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R761	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R766	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R767	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R768	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R769	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R770	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R771	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R772	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R773	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R775	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R786	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R787	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R788	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R789	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R790	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R791	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R792	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R793	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R795	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R798	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R802	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R804	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R805	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R806	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R807	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R811	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R814	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R820	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R823	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R825	1-216-633-11	s METAL, CHIP 180 0.5% 1/10W
R827	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R829	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R840	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R843	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R845	1-216-633-11	s METAL, CHIP 180 0.5% 1/10W
R847	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R849	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R851	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R852	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R853	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R854	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R855	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R856	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R857	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W

## (AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R858	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R859	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R861	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R866	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R867	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R868	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R869	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R870	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R871	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R872	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R873	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R875	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R886	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R887	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R888	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R889	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R890	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R891	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R892	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R893	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R895	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R898	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R904	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R905	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R913	1-218-764-11	s METAL 330K 0.5% 1/10W
R917	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R919	1-218-772-11	s METAL 680K 0.5% 1/10W
R920	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R921	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R924	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R925	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R936	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R937	1-218-754-11	s METAL, CHIP 120K 0.50% 1/10W
R941	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R942	1-218-760-11	s METAL 220K 0.5% 1/10W
R944	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R949	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R950	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R951	1-216-683-11	s METAL, CHIP 22K 0.5% 1/10W
R952	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R953	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R954	1-218-760-11	s METAL 220K 0.5% 1/10W
R955	1-218-764-11	s METAL 330K 0.5% 1/10W
R956	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R957	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R958	1-216-623-11	s METAL, CHIP 68 0.5% 1/10W
R1013	1-218-764-11	s METAL 330K 0.5% 1/10W
R1017	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R1019	1-218-772-11	s METAL 680K 0.5% 1/10W
R1020	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R1021	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R1024	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R1025	1-216-685-11	s METAL, CHIP 27K 0.5% 1/10W
R1036	1-216-679-11	s METAL, CHIP 15K 0.5% 1/10W
R1037	1-218-754-11	s METAL, CHIP 120K 0.50% 1/10W
R1041	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R1042	1-218-760-11	s METAL 220K 0.5% 1/10W
R1043	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R1044	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (AD-76P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R1049	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R1050	1-216-687-11 s	METAL, CHIP 33K 0.5% 1/10W
R1051	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R1052	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R1053	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R1054	1-218-760-11 s	METAL 220K 0.5% 1/10W
R1055	1-218-764-11 s	METAL 330K 0.5% 1/10W
R1056	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
R1057	1-216-635-11 s	METAL, CHIP 220 0.5% 1/10W
R1058	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
RB1	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB2	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB3	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB101	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB102	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB103	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RV101	1-228-993-00 s	RES, ADJ METAL 4.7K
RV102	1-228-993-00 s	RES, ADJ METAL 4.7K
RV103	1-228-994-00 s	RES, ADJ METAL 10K
RV111	1-230-504-11 s	RES, ADJ METAL 220
RV112	1-228-990-00 s	RES, ADJ METAL 1K
RV113	1-228-993-00 s	RES, ADJ METAL 4.7K
RV114	1-228-989-00 s	RES, ADJ METAL 470
RV115	1-228-989-00 s	RES, ADJ METAL 470
RV116	1-228-990-00 s	RES, ADJ METAL 1K
RV117	1-230-504-11 s	RES, ADJ METAL 220
RV118	1-228-989-00 s	RES, ADJ METAL 470
RV119	1-228-989-00 s	RES, ADJ METAL 470
RV121	1-228-989-00 s	RES, ADJ METAL 470
RV122	1-228-989-00 s	RES, ADJ METAL 470
RV123	1-228-989-00 s	RES, ADJ METAL 470
RV131	1-228-993-00 s	RES, ADJ METAL 4.7K
RV201	1-228-993-00 s	RES, ADJ METAL 4.7K
RV202	1-228-993-00 s	RES, ADJ METAL 4.7K
RV203	1-228-994-00 s	RES, ADJ METAL 10K
RV211	1-230-504-11 s	RES, ADJ METAL 220
RV212	1-228-990-00 s	RES, ADJ METAL 1K
RV213	1-228-993-00 s	RES, ADJ METAL 4.7K
RV214	1-228-989-00 s	RES, ADJ METAL 470
RV215	1-228-989-00 s	RES, ADJ METAL 470
RV216	1-228-990-00 s	RES, ADJ METAL 1K
RV217	1-230-504-11 s	RES, ADJ METAL 220
RV218	1-228-989-00 s	RES, ADJ METAL 470
RV219	1-228-989-00 s	RES, ADJ METAL 470
RV221	1-228-989-00 s	RES, ADJ METAL 470
RV222	1-228-989-00 s	RES, ADJ METAL 470
RV223	1-228-989-00 s	RES, ADJ METAL 470
RV231	1-228-993-00 s	RES, ADJ METAL 4.7K
RV301	1-237-503-21 s	RES, ADJ METAL 10K
RV302	1-228-990-00 s	RES, ADJ METAL 1K
S1	1-570-514-11 s	SWITCH, SLIDE
S2	1-570-514-11 s	SWITCH, SLIDE
S3	1-570-514-11 s	SWITCH, SLIDE
S4	1-570-514-11 s	SWITCH, SLIDE
X101	1-577-295-11 s	VCO, CRYSTAL 17.734475MHz
X102	1-577-259-11 s	CRYSTAL 17.734476 MHz
X201	1-577-295-11 s	VCO, CRYSTAL 17.734475MHz
X202	1-577-259-11 s	CRYSTAL 17.734476 MHz

## CN-573 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-681-A o	MOUNTED CIRCUIT BOARD, CN-573
1pc	3-178-137-01 o	BRACKET, D-SUB
4pcs	3-673-910-21 o	SCREW, CONNECTOR
2pcs	4-876-607-21 o	COLLAR (E), PLATE, JACK
3pcs	7-682-547-04 s	SCREW +B 3X6
C1	1-124-144-00 s	ELECT 220uF 20% 16V
C2	1-124-144-00 s	ELECT 220uF 20% 16V
CN1	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN4	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN6	1-691-274-11 s	CONNECTOR, BNC, FEMALE
CN7	1-695-807-11 s	CONNECTOR, 2-BNC, FEMALE
CN9	1-695-807-11 s	CONNECTOR, 2-BNC, FEMALE
CN11	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN12	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN13	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN14	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN15	1-573-589-11 s	CONNECTOR, CIRCULAR 12P, MALE
CN16	1-573-589-11 s	CONNECTOR, CIRCULAR 12P, MALE
CN17	1-573-589-11 s	CONNECTOR, CIRCULAR 12P, MALE
CN18	1-573-589-11 s	CONNECTOR, CIRCULAR 12P, MALE
CN21	1-568-676-11 o	CONNECTOR, D-SUB 9P, FEMALE
CN22	1-568-677-11 o	CONNECTOR, D-SUB 25PM, FEMALE
CN23	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN25	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN27	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN29	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN31	1-573-580-11 s	CONNECTOR, BNC, FEMALE
CN33	1-691-274-11 s	CONNECTOR, BNC, FEMALE
CN34	1-695-807-11 s	CONNECTOR, 2-BNC, FEMALE
CN36	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN37	1-573-590-12 s	CONNECTOR, CIRCULAR 4P, FEMALE
CN38	1-573-592-11 s	CONNECTOR, CIRCULAR 12P, FEMALE
CN39	1-573-592-11 s	CONNECTOR, CIRCULAR 12P, FEMALE
CN40	1-506-482-11 s	CONNECTOR 3P, MALE
L1	1-412-525-31 s	INDUCTOR 10uH
L2	1-412-525-31 s	INDUCTOR 10uH
R1	1-215-394-00 s	METAL 75 1% 1/6W
R2	1-215-394-00 s	METAL 75 1% 1/6W
R3	1-215-394-00 s	METAL 75 1% 1/6W
S1	1-570-157-51 s	SWITCH, SLIDE
S2	1-570-157-51 s	SWITCH, SLIDE
S3	1-570-157-51 s	SWITCH, SLIDE

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## DA-63 BOARD used for DFS-500

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-680-A	o MOUNTED CIRCUIT BOARD, DA-63
6pcs	2-280-622-21	o SUPPORT (M3X10), HEXAGON
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
12pcs	7-682-947-01	s SCREW +PSW 3X6
C1	1-124-589-11	s ELECT 47uF 20% 16V
C3	1-124-589-11	s ELECT 47uF 20% 16V
C5	1-124-589-11	s ELECT 47uF 20% 16V
C7	1-124-589-11	s ELECT 47uF 20% 16V
C9	1-124-589-11	s ELECT 47uF 20% 16V
C11	1-124-589-11	s ELECT 47uF 20% 16V
C13	1-124-589-11	s ELECT 47uF 20% 16V
C15	1-124-589-11	s ELECT 47uF 20% 16V
C17	1-124-589-11	s ELECT 47uF 20% 16V
C19	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C20	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C23	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C25	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C26	1-124-589-11	s ELECT 47uF 20% 16V
C28	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C29	1-124-589-11	s ELECT 47uF 20% 16V
C31	1-131-341-00	s TANTALUM 0.1uF 10% 35V
C32	1-124-589-11	s ELECT 47uF 20% 16V
C34	1-124-589-11	s ELECT 47uF 20% 16V
C36	1-124-589-11	s ELECT 47uF 20% 16V
C39	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C40	1-124-589-11	s ELECT 47uF 20% 16V
C43	1-124-589-11	s ELECT 47uF 20% 16V
C45	1-124-589-11	s ELECT 47uF 20% 16V
C47	1-124-589-11	s ELECT 47uF 20% 16V
C50	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C51	1-124-589-11	s ELECT 47uF 20% 16V
C53	1-131-345-00	s TANTALUM 0.47uF 10% 35V
C54	1-131-351-00	s TANTALUM 4.7uF 10% 35V
C55	1-124-589-11	s ELECT 47uF 20% 16V
C57	1-124-589-11	s ELECT 47uF 20% 16V
C59	1-124-589-11	s ELECT 47uF 20% 16V
C62	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C65	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C66	1-124-589-11	s ELECT 47uF 20% 16V
C69	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C70	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C71	1-124-589-11	s ELECT 47uF 20% 16V
C77	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C78	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C80	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C85	1-124-589-11	s ELECT 47uF 20% 16V
C86	1-124-589-11	s ELECT 47uF 20% 16V
C87	1-124-589-11	s ELECT 47uF 20% 16V
C88	1-124-589-11	s ELECT 47uF 20% 16V
C101	1-124-589-11	s ELECT 47uF 20% 16V
C103	1-124-589-11	s ELECT 47uF 20% 16V
C107	1-124-589-11	s ELECT 47uF 20% 16V
C124	1-124-589-11	s ELECT 47uF 20% 16V

## (DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C130	1-124-589-11	s ELECT 47uF 20% 16V
C131	1-124-589-11	s ELECT 47uF 20% 16V
C132	1-124-589-11	s ELECT 47uF 20% 16V
C201	1-124-589-11	s ELECT 47uF 20% 16V
C203	1-124-589-11	s ELECT 47uF 20% 16V
C205	1-124-589-11	s ELECT 47uF 20% 16V
C207	1-124-589-11	s ELECT 47uF 20% 16V
C209	1-124-589-11	s ELECT 47uF 20% 16V
C215	1-124-589-11	s ELECT 47uF 20% 16V
C217	1-124-589-11	s ELECT 47uF 20% 16V
C219	1-124-589-11	s ELECT 47uF 20% 16V
C221	1-124-589-11	s ELECT 47uF 20% 16V
C223	1-124-589-11	s ELECT 47uF 20% 16V
C225	1-124-589-11	s ELECT 47uF 20% 16V
C227	1-124-589-11	s ELECT 47uF 20% 16V
C229	1-124-589-11	s ELECT 47uF 20% 16V
C301	1-124-589-11	s ELECT 47uF 20% 16V
C303	1-124-589-11	s ELECT 47uF 20% 16V
C306	1-163-237-11	s CERAMIC, CHIP 27PF 5% 50V
C307	1-163-237-11	s CERAMIC, CHIP 27PF 5% 50V
C309	1-163-237-11	s CERAMIC, CHIP 27PF 5% 50V
C314	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C318	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C319	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C320	1-124-589-11	s ELECT 47uF 20% 16V
C322	1-124-589-11	s ELECT 47uF 20% 16V
C324	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C325	1-124-589-11	s ELECT 47uF 20% 16V
C347	1-124-589-11	s ELECT 47uF 20% 16V
C350	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C401	1-124-589-11	s ELECT 47uF 20% 16V
C403	1-124-589-11	s ELECT 47uF 20% 16V
C405	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C406	1-131-374-00	s TANTALUM 33uF 10% 16V
C407	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C415	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C416	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C418	1-124-589-11	s ELECT 47uF 20% 16V
C420	1-124-589-11	s ELECT 47uF 20% 16V
C424	1-124-589-11	s ELECT 47uF 20% 16V
C426	1-124-589-11	s ELECT 47uF 20% 16V
C430	1-163-224-11	s CERAMIC 7PF 0.25PF 50V
C431	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C432	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C433	1-124-589-11	s ELECT 47uF 20% 16V
C435	1-124-589-11	s ELECT 47uF 20% 16V
C437	1-124-589-11	s ELECT 47uF 20% 16V
C439	1-124-589-11	s ELECT 47uF 20% 16V
C501	1-124-589-11	s ELECT 47uF 20% 16V
C503	1-124-589-11	s ELECT 47uF 20% 16V
C505	1-124-589-11	s ELECT 47uF 20% 16V
C507	1-124-589-11	s ELECT 47uF 20% 16V
C509	1-124-589-11	s ELECT 47uF 20% 16V
C511	1-124-589-11	s ELECT 47uF 20% 16V
C513	1-124-589-11	s ELECT 47uF 20% 16V
C515	1-124-589-11	s ELECT 47uF 20% 16V
C517	1-124-589-11	s ELECT 47uF 20% 16V
C519	1-124-589-11	s ELECT 47uF 20% 16V
C521	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
C525	1-124-589-11 s	ELECT 47uF 20% 16V
C527	1-124-589-11 s	ELECT 47uF 20% 16V
C529	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C530	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C533	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C534	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C535	1-124-589-11 s	ELECT 47uF 20% 16V
C537	1-124-589-11 s	ELECT 47uF 20% 16V
C539	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C543	1-163-222-11 s	CERAMIC, CHIP 5PF 50V
C544	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C545	1-163-224-11 s	CERAMIC 7PF 0.25PF 50V
C546	1-163-224-11 s	CERAMIC 7PF 0.25PF 50V
C547	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C549	1-124-589-11 s	ELECT 47uF 20% 16V
C551	1-124-589-11 s	ELECT 47uF 20% 16V
C553	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C554	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C560	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C561	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C563	1-124-589-11 s	ELECT 47uF 20% 16V
C565	1-124-589-11 s	ELECT 47uF 20% 16V
C567	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C573	1-162-638-11 s	CERAMIC, CHIP 1uF 16V
C574	1-131-374-00 s	TANTALUM 33uF 10% 16V
C575	1-124-589-11 s	ELECT 47uF 20% 16V
C577	1-124-589-11 s	ELECT 47uF 20% 16V
C579	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C584	1-162-638-11 s	CERAMIC, CHIP 1uF 16V
C585	1-131-374-00 s	TANTALUM 33uF 10% 16V
C586	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C587	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C589	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C590	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C592	1-124-589-11 s	ELECT 47uF 20% 16V
C594	1-124-589-11 s	ELECT 47uF 20% 16V
C599	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C601	1-163-224-11 s	CERAMIC 7PF 0.25PF 50V
C605	1-163-235-11 s	CERAMIC, CHIP 22PF 5% 50V
C606	1-124-589-11 s	ELECT 47uF 20% 16V
C608	1-124-589-11 s	ELECT 47uF 20% 16V
C610	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C614	1-124-589-11 s	ELECT 47uF 20% 16V
C616	1-124-589-11 s	ELECT 47uF 20% 16V
C624	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C630	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C631	1-124-589-11 s	ELECT 47uF 20% 16V
C633	1-124-589-11 s	ELECT 47uF 20% 16V
C635	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C637	1-124-589-11 s	ELECT 47uF 20% 16V
C639	1-124-589-11 s	ELECT 47uF 20% 16V
C643	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C646	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C650	1-163-099-00 s	CERAMIC, CHIP 18PF 5% 50V
C658	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C659	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
CN1	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11 o	CONNECTOR, DIN 96P, MALE

(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
CN3	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN40	1-580-097-11 s	CONNECTOR, PICL-S 50P, MALE
CN50	1-580-097-11 s	CONNECTOR, PICL-S 50P, MALE
D1	8-719-104-34 s	DIODE 1S2835
D2	8-719-800-76 s	DIODE 1SS226
D3	8-719-800-76 s	DIODE 1SS226
D4	8-719-800-60 s	LED TLR214, RED
DL501	1-415-339-00 s	DELAY LINE 300nS
DL503	1-415-502-11 s	DELAY LINE 100nS
DL504	1-415-502-11 s	DELAY LINE 100nS
FL1	1-235-161-00 s	FILTER, BANDPASS 3.58MHz
FL301	1-235-786-11 s	FILTER, LOW-PASS
FL302	1-235-584-11 s	FILTER, LOW-PASS
FL401	1-235-161-00 s	FILTER, BANDPASS 3.58MHz
FL501	1-239-085-11 s	FILTER, LOW-PASS
FL502	1-239-085-11 s	FILTER, LOW-PASS
FL503	1-235-758-11 s	FILTER, LOW-PASS
FL504	1-235-758-11 s	FILTER, LOW-PASS
FL505	1-235-161-00 s	FILTER, BANDPASS 3.58MHz
IC1	8-759-520-06 s	IC NJM7809FA
IC2	8-759-700-68 s	IC NJM79L09A
IC3	8-759-231-53 s	IC TA7805S
IC4	8-741-104-00 s	IC BX1040
IC5	8-759-101-12 s	IC UPC311G2
IC6	8-752-335-47 s	IC CXD1216M
IC7	8-741-129-10 s	IC BX-1291
IC8	8-752-332-67 s	IC CXD1217M
IC9	1-808-513-12 s	IC IB-38
IC10	8-759-925-72 s	IC SN74HC02NS
IC11	8-759-948-28 s	IC SM5828P
IC12	8-759-907-81 s	IC SN74LS221NS
IC13	8-759-907-81 s	IC SN74LS221NS
IC14	8-759-926-82 s	IC SN74HC574ANS
IC15	8-759-926-82 s	IC SN74HC574ANS
IC16	8-759-926-82 s	IC SN74HC574ANS
IC17	8-759-209-20 s	IC TC4584BF
IC18	8-759-209-20 s	IC TC4584BF
IC19	8-759-989-56 s	IC SN74ALS244BNS
IC20	8-759-300-71 s	IC HD14053BFF
IC101	8-759-063-39 s	IC CXD8267Q
IC102	8-759-063-39 s	IC CXD8267Q
IC103	8-759-063-38 s	IC CXD8276Q
IC104	8-759-063-38 s	IC CXD8276Q
IC105	8-759-063-38 s	IC CXD8276Q
IC108	8-759-926-82 s	IC SN74HC574ANS
IC109	8-759-926-82 s	IC SN74HC574ANS
IC110	8-759-926-82 s	IC SN74HC574ANS
IC111	8-759-926-82 s	IC SN74HC574ANS
IC112	8-759-926-82 s	IC SN74HC574ANS
IC114	8-759-063-38 s	IC CXD8276Q
IC115	8-759-063-38 s	IC CXD8276Q
IC116	8-759-063-38 s	IC CXD8276Q
IC117	8-759-505-01 s	IC CXD8054
IC118	8-759-926-82 s	IC SN74HC574ANS
IC119	8-759-926-82 s	IC SN74HC574ANS
IC201	8-759-982-25 s	IC RC78L09A
IC202	8-759-708-05 s	IC NJM78L05A
IC203	8-759-515-12 s	IC SN74ALS574BNS

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
IC204	8-759-515-12	s IC SN74ALS574BNS
IC205	8-759-515-12	s IC SN74ALS574BNS
IC206	8-759-515-12	s IC SN74ALS574BNS
IC207	8-752-032-93	s IC CXA1260Q-Z
IC208	8-752-032-96	s IC CXA1106M
IC401	8-759-906-59	s IC CX22017
IC402	8-759-702-07	s IC NJM13700M
IC501	8-759-520-06	s IC NJM7809FA
IC502	8-759-701-87	s IC NJM7909FA
IC503	8-759-231-53	s IC TA7805S
IC504	8-759-701-84	s IC NJM7905FA
IC505	8-759-984-88	s IC LM6361M
IC506	8-759-984-88	s IC LM6361M
IC507	8-759-984-88	s IC LM6361M
IC508	8-759-702-07	s IC NJM13700M
IC509	8-741-135-60	s IC BX1356
IC510	8-741-135-60	s IC BX1356
IC511	8-741-135-60	s IC BX1356
IC512	8-759-984-88	s IC LM6361M
IC513	8-759-984-88	s IC LM6361M
IC514	8-759-906-59	s IC CX22017
IC516	8-759-702-07	s IC NJM13700M
IC517	8-752-052-73	s IC CXA1451M
IC518	8-759-984-88	s IC LM6361M
IC519	8-752-052-73	s IC CXA1451M
IC520	8-759-984-88	s IC LM6361M
IC521	8-759-702-07	s IC NJM13700M
IC522	8-752-052-73	s IC CXA1451M
IC523	8-759-984-88	s IC LM6361M
IC524	8-752-052-73	s IC CXA1451M
IC525	8-759-702-07	s IC NJM13700M
IC526	8-759-984-88	s IC LM6361M
IC601	8-759-989-56	s IC SN74ALS244BNS
IC602	8-759-989-56	s IC SN74ALS244BNS
IC603	8-759-989-56	s IC SN74ALS244BNS
JR1	1-216-295-00	s METAL, CHIP 0
JR3	1-216-295-00	s METAL, CHIP 0
JR5	1-216-295-00	s METAL, CHIP 0
JR7	1-216-295-00	s METAL, CHIP 0
JR9	1-216-295-00	s METAL, CHIP 0
JR11	1-216-295-00	s METAL, CHIP 0
JR13	1-216-295-00	s METAL, CHIP 0
JR15	1-216-295-00	s METAL, CHIP 0
JR17	1-216-295-00	s METAL, CHIP 0
JR21	1-216-295-00	s METAL, CHIP 0
JR401	1-216-295-00	s METAL, CHIP 0
JR403	1-216-295-00	s METAL, CHIP 0
L1	1-410-470-11	s INDUCTOR 10uH
L2	1-410-470-11	s INDUCTOR 10uH
L3	1-410-470-11	s INDUCTOR 10uH
L4	1-408-413-00	s INDUCTOR 22uH
L5	1-408-413-00	s INDUCTOR 22uH
L6	1-410-470-11	s INDUCTOR 10uH
L7	1-410-470-11	s INDUCTOR 10uH
L8	1-410-470-11	s INDUCTOR 10uH
L9	1-410-470-11	s INDUCTOR 10uH
L10	1-410-470-11	s INDUCTOR 10uH
L11	1-410-470-11	s INDUCTOR 10uH

(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
L12	1-410-470-11	s INDUCTOR 10uH
L13	1-410-470-11	s INDUCTOR 10uH
L14	1-412-525-31	s INDUCTOR 10uH
L15	1-412-525-31	s INDUCTOR 10uH
L101	1-412-525-31	s INDUCTOR 10uH
L202	1-410-470-11	s INDUCTOR 10uH
L203	1-410-470-11	s INDUCTOR 10uH
L204	1-410-470-11	s INDUCTOR 10uH
L205	1-410-470-11	s INDUCTOR 10uH
L206	1-410-470-11	s INDUCTOR 10uH
L207	1-410-470-11	s INDUCTOR 10uH
L301	1-410-470-11	s INDUCTOR 10uH
L302	1-410-470-11	s INDUCTOR 10uH
L303	1-408-418-00	s INDUCTOR 56uH
L401	1-410-470-11	s INDUCTOR 10uH
L402	1-408-425-00	s INDUCTOR 220uH
L403	1-410-470-11	s INDUCTOR 10uH
L404	1-410-470-11	s INDUCTOR 10uH
L501	1-410-470-11	s INDUCTOR 10uH
L502	1-410-470-11	s INDUCTOR 10uH
L503	1-410-470-11	s INDUCTOR 10uH
L504	1-410-470-11	s INDUCTOR 10uH
L505	1-410-470-11	s INDUCTOR 10uH
L506	1-408-425-00	s INDUCTOR 220uH
L507	1-410-470-11	s INDUCTOR 10uH
L508	1-410-470-11	s INDUCTOR 10uH
PS1	△1-532-637-00	s LINK, IC 1.0A
PS2	△1-532-685-00	s LINK, IC 0.6A
PS3	△1-532-637-00	s LINK, IC 1.0A
Q1	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q2	8-729-112-65	s TRANSISTOR 2SA1462-Y33
Q3	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q4	8-729-109-44	s TRANSISTOR 2SK94
Q5	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q6	8-729-175-73	s TRANSISTOR 2SC2757
Q7	8-729-112-65	s TRANSISTOR 2SA1462-Y33
Q8	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q9	8-729-109-44	s TRANSISTOR 2SK94
Q10	8-729-216-22	s TRANSISTOR 2SA1162
Q11	8-729-216-22	s TRANSISTOR 2SA1162
Q201	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q202	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q203	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q204	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q301	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q302	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q303	8-729-175-73	s TRANSISTOR 2SC2757
Q304	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q305	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q306	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q307	8-729-216-22	s TRANSISTOR 2SA1162
Q308	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q309	8-729-175-73	s TRANSISTOR 2SC2757
Q311	8-729-216-22	s TRANSISTOR 2SA1162
Q312	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q313	8-729-175-73	s TRANSISTOR 2SC2757
Q315	8-729-216-22	s TRANSISTOR 2SA1162
Q316	8-729-120-28	s TRANSISTOR 2SC1623-L5L6

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
Q402	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q403	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q406	8-729-216-22 s	TRANSISTOR 2SA1162
Q408	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q409	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q410	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q411	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q413	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q414	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q415	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q416	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q417	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q418	8-729-175-73 s	TRANSISTOR 2SC2757
Q419	8-729-175-73 s	TRANSISTOR 2SC2757
Q420	8-729-175-73 s	TRANSISTOR 2SC2757
Q421	8-729-175-73 s	TRANSISTOR 2SC2757
Q422	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q423	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q424	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q425	8-729-216-22 s	TRANSISTOR 2SA1162
Q426	8-729-216-22 s	TRANSISTOR 2SA1162
Q427	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q428	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q501	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q502	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q503	8-729-216-22 s	TRANSISTOR 2SA1162
Q506	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q507	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q508	8-729-216-22 s	TRANSISTOR 2SA1162
Q512	8-729-216-22 s	TRANSISTOR 2SA1162
Q514	8-729-216-22 s	TRANSISTOR 2SA1162
Q515	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q516	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q517	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q518	8-729-175-73 s	TRANSISTOR 2SC2757
Q519	8-729-175-73 s	TRANSISTOR 2SC2757
Q520	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q521	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q522	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q523	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q524	8-729-216-22 s	TRANSISTOR 2SA1162
Q525	8-729-216-22 s	TRANSISTOR 2SA1162
Q526	8-729-175-73 s	TRANSISTOR 2SC2757
Q527	8-729-175-73 s	TRANSISTOR 2SC2757
Q528	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q529	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q530	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q531	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q532	8-729-216-22 s	TRANSISTOR 2SA1162
Q533	8-729-175-73 s	TRANSISTOR 2SC2757
Q534	8-729-175-73 s	TRANSISTOR 2SC2757
Q535	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q536	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q537	8-729-216-22 s	TRANSISTOR 2SA1162
Q538	8-729-216-22 s	TRANSISTOR 2SA1162
Q540	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q541	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q542	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q545	8-729-175-73 s	TRANSISTOR 2SC2757

(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
Q546	8-729-216-22 s	TRANSISTOR 2SA1162
Q548	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q549	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q551	8-729-216-22 s	TRANSISTOR 2SA1162
Q553	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q554	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q556	8-729-216-22 s	TRANSISTOR 2SA1162
Q557	8-729-175-73 s	TRANSISTOR 2SC2757
Q558	8-729-216-22 s	TRANSISTOR 2SA1162
Q560	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q561	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q563	8-729-216-22 s	TRANSISTOR 2SA1162
Q564	8-729-175-73 s	TRANSISTOR 2SC2757
Q565	8-729-216-22 s	TRANSISTOR 2SA1162
Q567	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q568	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q572	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q573	8-729-216-22 s	TRANSISTOR 2SA1162
Q574	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q577	8-729-175-73 s	TRANSISTOR 2SC2757
Q578	8-729-216-22 s	TRANSISTOR 2SA1162
R2	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R7	1-216-615-11 s	METAL, CHIP 33 0.5% 1/10W
R8	1-218-776-11 s	METAL 1M 0.5% 1/10W
R10	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R13	1-216-695-11 s	METAL, CHIP 68K 0.5% 1/10W
R14	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
R23	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R24	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R26	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R27	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R28	1-216-642-11 s	METAL, CHIP 430 0.5% 1/10W
R31	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R36	1-216-687-11 s	METAL, CHIP 33K 0.5% 1/10W
R38	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
R39	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R41	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R44	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R45	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R48	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R49	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R53	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R208	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R209	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R210	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R211	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R302	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R305	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R309	1-216-641-11 s	METAL, CHIP 390 0.5% 1/10W
R310	1-216-641-11 s	METAL, CHIP 390 0.5% 1/10W
R312	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R313	1-216-661-11 s	METAL, CHIP 2.7K 0.5% 1/10W
R315	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R317	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R319	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R320	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R328	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R336	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R339	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R406	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R407	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R408	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R418	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R421	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R424	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R425	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R426	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R433	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R434	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R437	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R444	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R445	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R446	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R447	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R449	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R450	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R451	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R454	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R455	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R457	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R458	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R459	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R460	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R461	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R462	1-215-394-00	s METAL 75 1% 1/6W
R463	1-215-394-00	s METAL 75 1% 1/6W
R464	1-215-394-00	s METAL 75 1% 1/6W
R465	1-215-394-00	s METAL 75 1% 1/6W
R502	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R503	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R515	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R519	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R520	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R532	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R537	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R539	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R547	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R548	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R556	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R557	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R558	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R559	1-216-661-11	s METAL, CHIP 2.7K 0.5% 1/10W
R561	1-216-665-11	s METAL, CHIP 3.9K 0.5% 1/10W
R563	1-216-653-11	s METAL, CHIP 1.2K 0.5% 1/10W
R564	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R571	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R573	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R574	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R576	1-215-394-00	s METAL 75 1% 1/6W
R577	1-215-394-00	s METAL 75 1% 1/6W
R578	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R579	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R581	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R583	1-215-394-00	s METAL 75 1% 1/6W
R584	1-215-394-00	s METAL 75 1% 1/6W
R585	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R588	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W

(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R590	1-215-394-00	s METAL 75 1% 1/6W
R591	1-215-394-00	s METAL 75 1% 1/6W
R593	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R594	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R601	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R605	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R606	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R611	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R616	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R617	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R618	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R621	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R622	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R628	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R634	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R635	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R640	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R641	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R642	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R646	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R648	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R649	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R650	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R661	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R662	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R663	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R672	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R684	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R685	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R686	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R688	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R692	1-215-394-00	s METAL 75 1% 1/6W
R699	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R710	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R711	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R712	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R714	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R718	1-215-394-00	s METAL 75 1% 1/6W
R721	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R727	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R730	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R732	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R739	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R740	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R741	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R743	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R747	1-215-394-00	s METAL 75 1% 1/6W
R750	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R756	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R759	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R761	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R768	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R769	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R770	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R772	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R776	1-215-394-00	s METAL 75 1% 1/6W
R778	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R779	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R780	1-215-394-00	s METAL 75 1% 1/6W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
R781	1-215-394-00 s	METAL 75 1X 1/6W
R782	1-215-394-00 s	METAL 75 1X 1/6W
R797	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
R798	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R799	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R808	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R811	1-216-643-11 s	METAL, CHIP 470 0.5% 1/10W
RB101	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB102	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB103	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB104	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB105	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB106	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB107	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB108	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB109	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB110	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB111	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB112	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB113	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB114	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB115	1-231-411-00 s	RESISTOR BLOCK 100Kx8
RB202	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB203	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB204	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RB205	1-231-385-00 s	RESISTOR BLOCK 4.7Kx8
RV1	1-228-993-00 s	RES, ADJ METAL 4.7K
RV2	1-237-503-21 s	RES, ADJ METAL 10K
RV3	1-237-502-21 s	RES, ADJ METAL 5K
RV4	1-228-995-00 s	RES, ADJ METAL 22K
RV5	1-228-995-00 s	RES, ADJ METAL 22K
RV6	1-228-995-00 s	RES, ADJ METAL 22K
RV7	1-228-995-00 s	RES, ADJ METAL 22K
RV8	1-228-995-00 s	RES, ADJ METAL 22K
RV9	1-228-994-00 s	RES, ADJ METAL 10K
RV10	1-228-994-00 s	RES, ADJ METAL 10K
RV11	1-237-501-21 s	RES, ADJ METAL 2K
RV301	1-228-989-00 s	RES, ADJ METAL 470
RV402	1-228-993-00 s	RES, ADJ METAL 4.7K
RV404	1-237-500-21 s	RES, ADJ METAL 1K
RV406	1-228-990-00 s	RES, ADJ METAL 1K
RV504	1-228-993-00 s	RES, ADJ METAL 4.7K
RV506	1-228-991-00 s	RES, ADJ METAL 2.2K
RV507	1-237-500-21 s	RES, ADJ METAL 1K
RV508	1-237-500-21 s	RES, ADJ METAL 1K
RV509	1-237-500-21 s	RES, ADJ METAL 1K
RV511	1-228-993-00 s	RES, ADJ METAL 4.7K
RV512	1-228-991-00 s	RES, ADJ METAL 2.2K
RV514	1-228-993-00 s	RES, ADJ METAL 4.7K
RV515	1-228-989-00 s	RES, ADJ METAL 470
RV516	1-237-501-21 s	RES, ADJ METAL 2K
RV518	1-228-990-00 s	RES, ADJ METAL 1K
RV520	1-237-501-21 s	RES, ADJ METAL 2K
RV521	1-228-989-00 s	RES, ADJ METAL 470
RV522	1-237-501-21 s	RES, ADJ METAL 2K
RV523	1-228-989-00 s	RES, ADJ METAL 470
RV524	1-237-501-21 s	RES, ADJ METAL 2K
RV525	1-228-990-00 s	RES, ADJ METAL 1K

(DA-63 BOARD used for DFS-500)

Ref. No. or Q'ty	Part No.	SP Description
RV526	1-228-989-00 s	RES, ADJ METAL 470
S1	1-570-373-12 s	SWITCH, SLIDE
S2	1-554-399-00 s	SWITCH, TOGGLE
S3	1-553-252-00 s	SWITCH, DIGITAL
S101	1-554-027-00 s	SWITCH, DIGITAL
S102	1-570-514-11 s	SWITCH, SLIDE
S103	1-554-027-00 s	SWITCH, DIGITAL
TH1	1-800-071-11 s	THERMISTER, S-300
VCO1	1-577-089-11 s	VCO, CRYSTAL 14.318180MHz
VCO2	1-577-089-11 s	VCO, CRYSTAL 14.318180MHz

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## DA-63P BOARD used for DFS-500P

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-692-A	o MOUNTED CIRCUIT BOARD, DA-63P
6pcs	2-280-622-21	o SUPPORT (M3X10), HEXAGON
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
12pcs	7-682-947-01	s SCREW +PSW 3X6
C1	1-124-589-11	s ELECT 47uF 20% 16V
C3	1-124-589-11	s ELECT 47uF 20% 16V
C5	1-124-589-11	s ELECT 47uF 20% 16V
C7	1-124-589-11	s ELECT 47uF 20% 16V
C9	1-124-589-11	s ELECT 47uF 20% 16V
C11	1-124-589-11	s ELECT 47uF 20% 16V
C13	1-124-589-11	s ELECT 47uF 20% 16V
C15	1-124-589-11	s ELECT 47uF 20% 16V
C17	1-124-589-11	s ELECT 47uF 20% 16V
C19	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C20	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C23	1-163-113-00	s CERAMIC, CHIP 68PF 5% 50V
C25	1-163-113-00	s CERAMIC, CHIP 68PF 5% 50V
C26	1-124-589-11	s ELECT 47uF 20% 16V
C28	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C29	1-124-589-11	s ELECT 47uF 20% 16V
C31	1-131-341-00	s TANTALUM 0.1uF 10% 35V
C32	1-124-589-11	s ELECT 47uF 20% 16V
C34	1-124-589-11	s ELECT 47uF 20% 16V
C36	1-124-589-11	s ELECT 47uF 20% 16V
C39	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C40	1-124-589-11	s ELECT 47uF 20% 16V
C43	1-124-589-11	s ELECT 47uF 20% 16V
C45	1-124-589-11	s ELECT 47uF 20% 16V
C47	1-124-589-11	s ELECT 47uF 20% 16V
C50	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C51	1-124-589-11	s ELECT 47uF 20% 16V
C53	1-131-345-00	s TANTALUM 0.47uF 10% 35V
C54	1-131-351-00	s TANTALUM 4.7uF 10% 35V
C55	1-124-589-11	s ELECT 47uF 20% 16V
C57	1-124-589-11	s ELECT 47uF 20% 16V
C59	1-124-589-11	s ELECT 47uF 20% 16V
C62	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C65	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C66	1-124-589-11	s ELECT 47uF 20% 16V
C69	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C70	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C71	1-124-589-11	s ELECT 47uF 20% 16V
C77	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C78	1-163-121-00	s CERAMIC, CHIP 150PF 5% 50V
C80	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C85	1-124-589-11	s ELECT 47uF 20% 16V
C86	1-124-589-11	s ELECT 47uF 20% 16V
C87	1-124-589-11	s ELECT 47uF 20% 16V
C88	1-124-589-11	s ELECT 47uF 20% 16V
C101	1-124-589-11	s ELECT 47uF 20% 16V
C103	1-124-589-11	s ELECT 47uF 20% 16V
C107	1-124-589-11	s ELECT 47uF 20% 16V
C124	1-124-589-11	s ELECT 47uF 20% 16V

## (DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C130	1-124-589-11	s ELECT 47uF 20% 16V
C131	1-124-589-11	s ELECT 47uF 20% 16V
C132	1-124-589-11	s ELECT 47uF 20% 16V
C201	1-124-589-11	s ELECT 47uF 20% 16V
C203	1-124-589-11	s ELECT 47uF 20% 16V
C205	1-124-589-11	s ELECT 47uF 20% 16V
C207	1-124-589-11	s ELECT 47uF 20% 16V
C209	1-124-589-11	s ELECT 47uF 20% 16V
C215	1-124-589-11	s ELECT 47uF 20% 16V
C217	1-124-589-11	s ELECT 47uF 20% 16V
C219	1-124-589-11	s ELECT 47uF 20% 16V
C221	1-124-589-11	s ELECT 47uF 20% 16V
C223	1-124-589-11	s ELECT 47uF 20% 16V
C225	1-124-589-11	s ELECT 47uF 20% 16V
C227	1-124-589-11	s ELECT 47uF 20% 16V
C229	1-124-589-11	s ELECT 47uF 20% 16V
C301	1-124-589-11	s ELECT 47uF 20% 16V
C303	1-124-589-11	s ELECT 47uF 20% 16V
C306	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C307	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C309	1-163-237-11	s CERAMIC, CHIP 27PF 5% 50V
C314	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C318	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C319	1-124-282-00	s ELECT, NONPOLAR 22uF 20% 25V
C320	1-124-589-11	s ELECT 47uF 20% 16V
C322	1-124-589-11	s ELECT 47uF 20% 16V
C324	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C325	1-124-589-11	s ELECT 47uF 20% 16V
C347	1-124-589-11	s ELECT 47uF 20% 16V
C350	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V
C401	1-124-589-11	s ELECT 47uF 20% 16V
C403	1-124-589-11	s ELECT 47uF 20% 16V
C405	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C406	1-131-374-00	s TANTALUM 33uF 10% 16V
C407	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C411	1-162-638-11	s CERAMIC, CHIP 1uF 16V
C412	1-131-374-00	s TANTALUM 33uF 10% 16V
C413	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C415	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C416	1-164-232-11	s CERAMIC 0.01uF 10% 100V
C417	1-124-589-11	s ELECT 47uF 20% 16V
C418	1-124-589-11	s ELECT 47uF 20% 16V
C420	1-124-589-11	s ELECT 47uF 20% 16V
C424	1-124-589-11	s ELECT 47uF 20% 16V
C426	1-124-589-11	s ELECT 47uF 20% 16V
C430	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C431	1-163-241-11	s CERAMIC, CHIP 39PF 5% 50V
C432	1-163-227-11	s CERAMIC, CHIP 10PF 5% 50V
C433	1-124-589-11	s ELECT 47uF 20% 16V
C435	1-124-589-11	s ELECT 47uF 20% 16V
C437	1-124-589-11	s ELECT 47uF 20% 16V
C439	1-124-589-11	s ELECT 47uF 20% 16V
C501	1-124-589-11	s ELECT 47uF 20% 16V
C503	1-124-589-11	s ELECT 47uF 20% 16V
C505	1-124-589-11	s ELECT 47uF 20% 16V
C507	1-124-589-11	s ELECT 47uF 20% 16V
C509	1-124-589-11	s ELECT 47uF 20% 16V
C511	1-124-589-11	s ELECT 47uF 20% 16V
C513	1-124-589-11	s ELECT 47uF 20% 16V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C515	1-124-589-11 s	ELECT 47uF 20% 16V
C517	1-124-589-11 s	ELECT 47uF 20% 16V
C519	1-124-589-11 s	ELECT 47uF 20% 16V
C521	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C525	1-124-589-11 s	ELECT 47uF 20% 16V
C527	1-124-589-11 s	ELECT 47uF 20% 16V
C529	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C530	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C533	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C534	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C535	1-124-589-11 s	ELECT 47uF 20% 16V
C537	1-124-589-11 s	ELECT 47uF 20% 16V
C539	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C543	1-163-222-11 s	CERAMIC, CHIP 5PF 50V
C544	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C545	1-163-224-11 s	CERAMIC 7PF 0.25PF 50V
C546	1-163-224-11 s	CERAMIC 7PF 0.25PF 50V
C547	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C549	1-124-589-11 s	ELECT 47uF 20% 16V
C551	1-124-589-11 s	ELECT 47uF 20% 16V
C553	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C554	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C560	1-163-087-00 s	CERAMIC, CHIP 4PF 50V
C561	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C563	1-124-589-11 s	ELECT 47uF 20% 16V
C565	1-124-589-11 s	ELECT 47uF 20% 16V
C567	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C570	1-124-589-11 s	ELECT 47uF 20% 16V
C573	1-162-638-11 s	CERAMIC, CHIP 1uF 16V
C574	1-131-374-00 s	TANTALUM 33uF 10% 16V
C575	1-124-589-11 s	ELECT 47uF 20% 16V
C577	1-124-589-11 s	ELECT 47uF 20% 16V
C579	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
C584	1-162-638-11 s	CERAMIC, CHIP 1uF 16V
C585	1-131-374-00 s	TANTALUM 33uF 10% 16V
C586	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C587	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C589	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C590	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C591	1-124-589-11 s	ELECT 47uF 20% 16V
C592	1-124-589-11 s	ELECT 47uF 20% 16V
C594	1-124-589-11 s	ELECT 47uF 20% 16V
C599	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C601	1-163-227-11 s	CERAMIC, CHIP 10PF 5% 50V
C605	1-163-235-11 s	CERAMIC, CHIP 22PF 5% 50V
C606	1-124-589-11 s	ELECT 47uF 20% 16V
C608	1-124-589-11 s	ELECT 47uF 20% 16V
C610	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C614	1-124-589-11 s	ELECT 47uF 20% 16V
C616	1-124-589-11 s	ELECT 47uF 20% 16V
C624	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C630	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C631	1-124-589-11 s	ELECT 47uF 20% 16V
C633	1-124-589-11 s	ELECT 47uF 20% 16V
C635	1-164-232-11 s	CERAMIC 0.01uF 10% 100V
C637	1-124-589-11 s	ELECT 47uF 20% 16V
C639	1-124-589-11 s	ELECT 47uF 20% 16V
C643	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C646	1-164-232-11 s	CERAMIC 0.01uF 10% 100V

(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
C650	1-163-099-00 s	CERAMIC, CHIP 18PF 5% 50V
C658	1-163-243-11 s	CERAMIC, CHIP 47PF 5% 50V
C659	1-124-282-00 s	ELECT, NONPOLAR 22uF 20% 25V
CN1	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN40	1-580-097-11 s	CONNECTOR, PICL-S 50P, MALE
CN50	1-580-097-11 s	CONNECTOR, PICL-S 50P, MALE
D1	8-719-104-34 s	DIODE 1S2835
D2	8-719-800-76 s	DIODE 1SS226
D3	8-719-800-76 s	DIODE 1SS226
D4	8-719-800-60 s	LED TLR214, RED
DL501	1-415-339-00 s	DELAY LINE 300ns
DL503	1-415-502-11 s	DELAY LINE 100ns
DL504	1-415-502-11 s	DELAY LINE 100ns
FL1	1-235-181-00 s	FILTER, BANDPASS 4.43MHZ
FL301	1-235-584-11 s	FILTER, LOW-PASS
FL302	1-235-584-11 s	FILTER, LOW-PASS
FL401	1-235-181-00 s	FILTER, BANDPASS 4.43MHZ
FL501	1-239-085-11 s	FILTER, LOW-PASS
FL502	1-239-085-11 s	FILTER, LOW-PASS
FL503	1-235-758-11 s	FILTER, LOW-PASS
FL504	1-235-758-11 s	FILTER, LOW-PASS
FL505	1-235-181-00 s	FILTER, BANDPASS 4.43MHZ
IC1	8-759-520-06 s	IC NJM7809FA
IC2	8-759-700-68 s	IC NJM79L09A
IC3	8-759-231-53 s	IC TA7805S
IC4	8-741-104-00 s	IC BX1040
IC5	8-759-101-12 s	IC UPC311G2
IC6	8-752-335-47 s	IC CXD1216M
IC7	8-741-129-10 s	IC BX-1291
IC8	8-752-332-67 s	IC CXD1217M
IC9	1-808-513-12 s	IC IB-38
IC10	8-759-925-72 s	IC SN74HC02NS
IC11	8-759-948-28 s	IC SM5828P
IC12	8-759-907-81 s	IC SN74LS221NS
IC13	8-759-907-81 s	IC SN74LS221NS
IC14	8-759-926-82 s	IC SN74HC574ANS
IC15	8-759-926-82 s	IC SN74HC574ANS
IC16	8-759-926-82 s	IC SN74HC574ANS
IC17	8-759-209-20 s	IC TC4584BF
IC18	8-759-209-20 s	IC TC4584BF
IC19	8-759-989-56 s	IC SN74ALS244BNS
IC20	8-759-300-71 s	IC HD14053BFP
IC101	8-759-063-39 s	IC CXD8267Q
IC102	8-759-063-39 s	IC CXD8267Q
IC103	8-759-063-38 s	IC CXD8276Q
IC104	8-759-063-38 s	IC CXD8276Q
IC105	8-759-063-38 s	IC CXD8276Q
IC108	8-759-926-82 s	IC SN74HC574ANS
IC109	8-759-926-82 s	IC SN74HC574ANS
IC110	8-759-926-82 s	IC SN74HC574ANS
IC111	8-759-926-82 s	IC SN74HC574ANS
IC112	8-759-926-82 s	IC SN74HC574ANS
IC114	8-759-063-38 s	IC CXD8276Q
IC115	8-759-063-38 s	IC CXD8276Q
IC116	8-759-063-38 s	IC CXD8276Q
IC117	8-759-505-01 s	IC CXD8054

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
IC118	8-759-926-82	s IC SN74HC574ANS
IC119	8-759-926-82	s IC SN74HC574ANS
IC201	8-759-982-25	s IC RC78L09A
IC202	8-759-708-05	s IC NJM78L05A
IC203	8-759-515-12	s IC SN74ALS574BNS
IC204	8-759-515-12	s IC SN74ALS574BNS
IC205	8-759-515-12	s IC SN74ALS574BNS
IC206	8-759-515-12	s IC SN74ALS574BNS
IC207	8-752-032-93	s IC CXA1260Q-Z
IC208	8-752-032-96	s IC CXA1106M
IC401	8-759-906-59	s IC CX22017
IC402	8-759-702-07	s IC NJM13700M
IC501	8-759-520-06	s IC NJM7809FA
IC502	8-759-701-87	s IC NJM7909FA
IC503	8-759-231-53	s IC TA7805S
IC504	8-759-701-84	s IC NJM7905FA
IC505	8-759-984-88	s IC LM6361M
IC506	8-759-984-88	s IC LM6361M
IC507	8-759-984-88	s IC LM6361M
IC508	8-759-702-07	s IC NJM13700M
IC509	8-741-135-60	s IC BX1356
IC510	8-741-135-60	s IC BX1356
IC511	8-741-135-60	s IC BX1356
IC512	8-759-984-88	s IC LM6361M
IC513	8-759-984-88	s IC LM6361M
IC514	8-759-906-59	s IC CX22017
IC516	8-759-702-07	s IC NJM13700M
IC517	8-752-052-73	s IC CXA1451M
IC518	8-759-984-88	s IC LM6361M
IC519	8-752-052-73	s IC CXA1451M
IC520	8-759-984-88	s IC LM6361M
IC521	8-759-702-07	s IC NJM13700M
IC522	8-752-052-73	s IC CXA1451M
IC523	8-759-984-88	s IC LM6361M
IC524	8-752-052-73	s IC CXA1451M
IC525	8-759-702-07	s IC NJM13700M
IC526	8-759-984-88	s IC LM6361M
IC601	8-759-989-56	s IC SN74ALS244BNS
IC602	8-759-989-56	s IC SN74ALS244BNS
IC603	8-759-989-56	s IC SN74ALS244BNS
JR2	1-216-295-00	s METAL, CHIP 0
JR4	1-216-295-00	s METAL, CHIP 0
JR6	1-216-295-00	s METAL, CHIP 0
JR10	1-216-295-00	s METAL, CHIP 0
JR12	1-216-295-00	s METAL, CHIP 0
JR14	1-216-295-00	s METAL, CHIP 0
JR16	1-216-295-00	s METAL, CHIP 0
JR18	1-216-295-00	s METAL, CHIP 0
JR20	1-216-295-00	s METAL, CHIP 0
JR22	1-216-295-00	s METAL, CHIP 0
JR402	1-216-295-00	s METAL, CHIP 0
L1	1-410-470-11	s INDUCTOR 10uH
L2	1-410-470-11	s INDUCTOR 10uH
L3	1-410-470-11	s INDUCTOR 10uH
L4	1-408-413-00	s INDUCTOR 22uH
L5	1-408-413-00	s INDUCTOR 22uH
L6	1-410-470-11	s INDUCTOR 10uH
L7	1-410-470-11	s INDUCTOR 10uH

(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
L8	1-410-470-11	s INDUCTOR 10uH
L9	1-410-470-11	s INDUCTOR 10uH
L10	1-410-470-11	s INDUCTOR 10uH
L11	1-410-470-11	s INDUCTOR 10uH
L12	1-410-470-11	s INDUCTOR 10uH
L13	1-410-470-11	s INDUCTOR 10uH
L14	1-412-525-31	s INDUCTOR 10uH
L15	1-412-525-31	s INDUCTOR 10uH
L101	1-412-525-31	s INDUCTOR 10uH
L202	1-410-470-11	s INDUCTOR 10uH
L203	1-410-470-11	s INDUCTOR 10uH
L204	1-410-470-11	s INDUCTOR 10uH
L205	1-410-470-11	s INDUCTOR 10uH
L206	1-410-470-11	s INDUCTOR 10uH
L207	1-410-470-11	s INDUCTOR 10uH
L301	1-410-470-11	s INDUCTOR 10uH
L302	1-410-470-11	s INDUCTOR 10uH
L303	1-410-478-11	s INDUCTOR 47uH
L401	1-410-470-11	s INDUCTOR 10uH
L402	1-408-422-00	s INDUCTOR 120uH
L403	1-410-470-11	s INDUCTOR 10uH
L404	1-410-470-11	s INDUCTOR 10uH
L501	1-410-470-11	s INDUCTOR 10uH
L502	1-410-470-11	s INDUCTOR 10uH
L503	1-410-470-11	s INDUCTOR 10uH
L504	1-410-470-11	s INDUCTOR 10uH
L505	1-410-470-11	s INDUCTOR 10uH
L506	1-408-422-00	s INDUCTOR 120uH
L507	1-410-470-11	s INDUCTOR 10uH
L508	1-410-470-11	s INDUCTOR 10uH
PS1	Δ1-532-637-00	s LINK, IC 1.0A
PS2	Δ1-532-685-00	s LINK, IC 0.6A
PS3	Δ1-532-637-00	s LINK, IC 1.0A
Q1	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q2	8-729-112-65	s TRANSISTOR 2SA1462-Y33
Q3	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q4	8-729-109-44	s TRANSISTOR 2SK94
Q5	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q6	8-729-175-73	s TRANSISTOR 2SC2757
Q7	8-729-112-65	s TRANSISTOR 2SA1462-Y33
Q8	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q9	8-729-109-44	s TRANSISTOR 2SK94
Q10	8-729-216-22	s TRANSISTOR 2SA1162
Q11	8-729-216-22	s TRANSISTOR 2SA1162
Q201	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q202	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q203	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q204	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q301	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q302	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q303	8-729-175-73	s TRANSISTOR 2SC2757
Q304	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q305	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q306	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q307	8-729-216-22	s TRANSISTOR 2SA1162
Q308	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q309	8-729-175-73	s TRANSISTOR 2SC2757
Q311	8-729-216-22	s TRANSISTOR 2SA1162

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
Q312	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q313	8-729-175-73 s	TRANSISTOR 2SC2757
Q315	8-729-216-22 s	TRANSISTOR 2SA1162
Q316	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q401	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q402	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q403	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q404	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q405	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q406	8-729-216-22 s	TRANSISTOR 2SA1162
Q407	8-729-216-22 s	TRANSISTOR 2SA1162
Q408	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q409	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q410	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q411	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q413	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q414	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q415	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q416	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q417	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q418	8-729-175-73 s	TRANSISTOR 2SC2757
Q419	8-729-175-73 s	TRANSISTOR 2SC2757
Q420	8-729-175-73 s	TRANSISTOR 2SC2757
Q421	8-729-175-73 s	TRANSISTOR 2SC2757
Q422	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q423	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q424	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q425	8-729-216-22 s	TRANSISTOR 2SA1162
Q426	8-729-216-22 s	TRANSISTOR 2SA1162
Q427	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q428	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q501	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q502	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q503	8-729-216-22 s	TRANSISTOR 2SA1162
Q506	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q507	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q508	8-729-216-22 s	TRANSISTOR 2SA1162
Q512	8-729-216-22 s	TRANSISTOR 2SA1162
Q514	8-729-216-22 s	TRANSISTOR 2SA1162
Q515	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q516	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q517	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q518	8-729-175-73 s	TRANSISTOR 2SC2757
Q519	8-729-175-73 s	TRANSISTOR 2SC2757
Q520	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q521	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q522	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q523	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q524	8-729-216-22 s	TRANSISTOR 2SA1162
Q525	8-729-216-22 s	TRANSISTOR 2SA1162
Q526	8-729-175-73 s	TRANSISTOR 2SC2757
Q527	8-729-175-73 s	TRANSISTOR 2SC2757
Q528	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q529	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q530	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q531	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q532	8-729-216-22 s	TRANSISTOR 2SA1162
Q533	8-729-175-73 s	TRANSISTOR 2SC2757
Q534	8-729-175-73 s	TRANSISTOR 2SC2757

## (DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
Q535	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q536	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q537	8-729-216-22 s	TRANSISTOR 2SA1162
Q538	8-729-216-22 s	TRANSISTOR 2SA1162
Q540	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q541	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q542	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q545	8-729-175-73 s	TRANSISTOR 2SC2757
Q546	8-729-216-22 s	TRANSISTOR 2SA1162
Q548	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q549	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q551	8-729-216-22 s	TRANSISTOR 2SA1162
Q553	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q554	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q556	8-729-216-22 s	TRANSISTOR 2SA1162
Q557	8-729-175-73 s	TRANSISTOR 2SC2757
Q558	8-729-216-22 s	TRANSISTOR 2SA1162
Q560	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q561	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q563	8-729-216-22 s	TRANSISTOR 2SA1162
Q564	8-729-175-73 s	TRANSISTOR 2SC2757
Q565	8-729-216-22 s	TRANSISTOR 2SA1162
Q567	8-729-116-64 s	TRANSISTOR 2SK508-K51
Q568	8-729-112-65 s	TRANSISTOR 2SA1462-Y33
Q572	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q573	8-729-216-22 s	TRANSISTOR 2SA1162
Q574	8-729-120-28 s	TRANSISTOR 2SC1623-L5L6
Q577	8-729-175-73 s	TRANSISTOR 2SC2757
Q578	8-729-216-22 s	TRANSISTOR 2SA1162
R2	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R7	1-216-615-11 s	METAL, CHIP 33 0.5% 1/10W
R8	1-218-776-11 s	METAL 1M 0.5% 1/10W
R10	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R13	1-216-695-11 s	METAL, CHIP 68K 0.5% 1/10W
R14	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
R23	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R24	1-216-691-11 s	METAL, CHIP 47K 0.5% 1/10W
R26	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R27	1-216-649-11 s	METAL, CHIP 820 0.5% 1/10W
R28	1-216-642-11 s	METAL, CHIP 430 0.5% 1/10W
R31	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R36	1-216-687-11 s	METAL, CHIP 33K 0.5% 1/10W
R38	1-216-623-11 s	METAL, CHIP 68 0.5% 1/10W
R39	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R41	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R44	1-216-679-11 s	METAL, CHIP 15K 0.5% 1/10W
R45	1-216-663-11 s	METAL, CHIP 3.3K 0.5% 1/10W
R48	1-216-683-11 s	METAL, CHIP 22K 0.5% 1/10W
R49	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R53	1-216-671-11 s	METAL, CHIP 6.8K 0.5% 1/10W
R208	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R209	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R210	1-216-647-11 s	METAL, CHIP 680 0.5% 1/10W
R211	1-216-655-11 s	METAL, CHIP 1.5K 0.5% 1/10W
R302	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R305	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W
R309	1-216-641-11 s	METAL, CHIP 390 0.5% 1/10W
R310	1-216-641-11 s	METAL, CHIP 390 0.5% 1/10W
R312	1-216-669-11 s	METAL, CHIP 5.6K 0.5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R313	1-216-661-11	s METAL, CHIP 2.7K 0.5% 1/10W
R315	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R317	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R319	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R320	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R328	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R336	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R339	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R403	1-216-645-11	s METAL, CHIP 560 0.5% 1/10W
R404	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R406	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R407	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R408	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R411	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R412	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R413	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R414	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R418	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R420	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R424	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R425	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R426	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R433	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R434	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R437	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R444	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R445	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R446	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R447	1-216-635-11	s METAL, CHIP 220 0.5% 1/10W
R449	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R450	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R451	1-216-639-11	s METAL, CHIP 330 0.5% 1/10W
R454	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R455	1-216-637-11	s METAL, CHIP 270 0.5% 1/10W
R457	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R458	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R459	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R460	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R461	1-216-309-00	s METAL, CHIP 5.6 5% 1/10W
R462	1-215-394-00	s METAL 75 1% 1/6W
R463	1-215-394-00	s METAL 75 1% 1/6W
R464	1-215-394-00	s METAL 75 1% 1/6W
R465	1-215-394-00	s METAL 75 1% 1/6W
R502	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R503	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R515	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R519	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R520	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R532	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R537	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R539	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R547	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R548	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R556	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R557	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R558	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R559	1-216-661-11	s METAL, CHIP 2.7K 0.5% 1/10W
R561	1-216-665-11	s METAL, CHIP 3.9K 0.5% 1/10W
R563	1-216-653-11	s METAL, CHIP 1.2K 0.5% 1/10W

(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R564	1-216-671-11	s METAL, CHIP 6.8K 0.5% 1/10W
R571	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R573	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R574	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R576	1-215-394-00	s METAL 75 1% 1/6W
R577	1-215-394-00	s METAL 75 1% 1/6W
R578	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R579	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R581	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R583	1-215-394-00	s METAL 75 1% 1/6W
R584	1-215-394-00	s METAL 75 1% 1/6W
R585	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R588	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R590	1-215-394-00	s METAL 75 1% 1/6W
R591	1-215-394-00	s METAL 75 1% 1/6W
R593	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R594	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R601	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R605	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R606	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R611	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R616	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R617	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R618	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R621	1-216-673-11	s METAL, CHIP 8.2K 0.5% 1/10W
R622	1-216-691-11	s METAL, CHIP 47K 0.5% 1/10W
R628	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R634	1-216-677-11	s METAL, CHIP 12K 0.5% 1/10W
R635	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R640	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R641	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R642	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R646	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R648	1-216-657-11	s METAL, CHIP 1.8K 0.5% 1/10W
R650	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R661	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R662	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R663	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R672	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R684	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R685	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R686	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R688	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R692	1-215-394-00	s METAL 75 1% 1/6W
R699	1-216-649-11	s METAL, CHIP 820 0.5% 1/10W
R710	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R711	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R712	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R714	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R718	1-215-394-00	s METAL 75 1% 1/6W
R721	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R727	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R730	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R732	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R739	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R740	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R741	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R743	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R747	1-215-394-00	s METAL 75 1% 1/6W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
R750	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R756	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R759	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R761	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R768	1-216-687-11	s METAL, CHIP 33K 0.5% 1/10W
R769	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R770	1-216-663-11	s METAL, CHIP 3.3K 0.5% 1/10W
R772	1-216-647-11	s METAL, CHIP 680 0.5% 1/10W
R776	1-215-394-00	s METAL 75 1% 1/6W
R778	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R779	1-216-640-11	s METAL, CHIP 360 0.5% 1/10W
R780	1-215-394-00	s METAL 75 1% 1/6W
R781	1-215-394-00	s METAL 75 1% 1/6W
R782	1-215-394-00	s METAL 75 1% 1/6W
R797	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
R798	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R799	1-216-669-11	s METAL, CHIP 5.6K 0.5% 1/10W
R808	1-216-655-11	s METAL, CHIP 1.5K 0.5% 1/10W
R811	1-216-643-11	s METAL, CHIP 470 0.5% 1/10W
RB101	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB102	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB103	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB104	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB105	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB106	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB107	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB108	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB109	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB110	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB111	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB112	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB113	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB114	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB115	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB202	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB203	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB204	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RB205	1-231-385-00	s RESISTOR BLOCK 4.7Kx8
RV1	1-228-993-00	s RES, ADJ METAL 4.7K
RV2	1-237-503-21	s RES, ADJ METAL 10K
RV3	1-237-502-21	s RES, ADJ METAL 5K
RV4	1-228-995-00	s RES, ADJ METAL 22K
RV5	1-228-995-00	s RES, ADJ METAL 22K
RV6	1-228-995-00	s RES, ADJ METAL 22K
RV7	1-228-995-00	s RES, ADJ METAL 22K
RV8	1-228-995-00	s RES, ADJ METAL 22K
RV9	1-228-994-00	s RES, ADJ METAL 10K
RV10	1-228-994-00	s RES, ADJ METAL 10K
RV11	1-237-501-21	s RES, ADJ METAL 2K
RV301	1-228-989-00	s RES, ADJ METAL 470
RV401	1-228-990-00	s RES, ADJ METAL 1K
RV402	1-228-993-00	s RES, ADJ METAL 4.7K
RV403	1-228-993-00	s RES, ADJ METAL 4.7K
RV404	1-237-500-21	s RES, ADJ METAL 1K
RV406	1-228-990-00	s RES, ADJ METAL 1K
RV504	1-228-993-00	s RES, ADJ METAL 4.7K
RV506	1-228-991-00	s RES, ADJ METAL 2.2K
RV507	1-237-500-21	s RES, ADJ METAL 1K

(DA-63P BOARD used for DFS-500P)

Ref. No. or Q'ty	Part No.	SP Description
RV508	1-237-500-21	s RES, ADJ METAL 1K
RV509	1-237-500-21	s RES, ADJ METAL 1K
RV511	1-228-993-00	s RES, ADJ METAL 4.7K
RV512	1-228-991-00	s RES, ADJ METAL 2.2K
RV513	1-228-993-00	s RES, ADJ METAL 4.7K
RV514	1-228-993-00	s RES, ADJ METAL 4.7K
RV515	1-228-989-00	s RES, ADJ METAL 470
RV516	1-237-501-21	s RES, ADJ METAL 2K
RV518	1-228-990-00	s RES, ADJ METAL 1K
RV520	1-237-501-21	s RES, ADJ METAL 2K
RV521	1-228-989-00	s RES, ADJ METAL 470
RV522	1-237-501-21	s RES, ADJ METAL 2K
RV523	1-228-989-00	s RES, ADJ METAL 470
RV524	1-237-501-21	s RES, ADJ METAL 2K
RV525	1-228-990-00	s RES, ADJ METAL 1K
RV526	1-228-989-00	s RES, ADJ METAL 470
S1	1-570-373-12	s SWITCH, SLIDE
S2	1-554-399-00	s SWITCH, TOGGLE
S3	1-553-252-00	s SWITCH, DIGITAL
S101	1-554-027-00	s SWITCH, DIGITAL
S102	1-570-514-11	s SWITCH, SLIDE
S103	1-554-027-00	s SWITCH, DIGITAL
TH1	1-800-071-11	s THERMISTOR, S-300
VCO1	1-577-295-11	s VCO, CRYSTAL 17.734475MHZ
VCO2	1-577-294-11	s VCO, CRYSTAL 14.187500MHZ

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## FM-29/FM-29P BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-684-A	o MOUNTED CIRCUIT BOARD, FM-29 (for DFS-500)
1pc	A-8271-693-A	o MOUNTED CIRCUIT BOARD, FM-29P (for DFS-500P)
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
C1	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C2	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C3	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C4	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C5	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C6	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C7	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C8	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C9	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C10	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C11	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C12	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C13	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C14	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C15	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C16	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C17	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C18	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C19	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C20	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C21	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C22	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C23	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C24	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C25	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C26	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C27	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C28	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C29	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C30	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C31	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C32	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C33	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C34	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C35	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C36	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C37	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C38	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C39	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C40	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C41	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C42	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C43	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C44	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C45	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C46	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C47	1-161-055-00	s CERAMIC 0.022uF 10% 50V

## (FM-29/FM-29P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C48	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C49	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C50	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C51	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C52	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C53	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C54	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C55	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C56	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C57	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C58	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C59	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C60	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C61	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C62	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C63	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C64	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C65	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C66	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C67	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C68	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C69	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C70	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C71	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C72	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C73	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C74	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C75	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C76	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C77	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C78	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C79	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C80	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C81	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C82	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C83	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C84	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C85	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C86	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C87	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C88	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C89	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C90	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C91	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C92	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C93	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C94	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C95	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C96	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C97	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C98	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C99	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C100	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C101	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C102	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C103	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C104	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C105	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C106	1-161-055-00	s CERAMIC 0.022uF 10% 50V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (FM-29/FM-29P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C107	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C108	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C109	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C110	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C111	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C112	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C113	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C114	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C115	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C116	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C117	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C118	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C119	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C120	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C121	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C122	1-124-584-00	s ELECT 100uF 20% 10V
C123	1-124-584-00	s ELECT 100uF 20% 10V
C124	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C125	1-124-584-00	s ELECT 100uF 20% 10V
C126	1-124-584-00	s ELECT 100uF 20% 10V
C127	1-124-584-00	s ELECT 100uF 20% 10V
C128	1-124-584-00	s ELECT 100uF 20% 10V
C129	1-124-584-00	s ELECT 100uF 20% 10V
C130	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C131	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C201	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C202	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C203	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C204	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C205	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C206	1-161-055-00	s CERAMIC 0.022uF 10% 50V
CN13	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN14	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN15	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CNI107	1-540-080-11	s SOCKET, IC (IC113) 68P
IC1	8-759-989-55	s IC SN74ALS244BN
IC2	8-759-900-69	s IC SN74ALS74AN
IC3	8-759-945-78	s IC SN74ALS11AN
IC4	8-759-904-18	s IC SN74ALS00AN
IC5	8-759-936-54	s IC SN74ALS175N
IC6	8-759-515-08	s IC SN74ALS374AN
IC7	8-759-904-18	s IC SN74ALS00AN
IC8	8-752-304-30	s IC CX23043
IC9	8-759-912-05	s IC SN74ALS161BN
IC10	8-759-515-08	s IC SN74ALS374AN
IC11	8-759-903-74	s IC SN74LS374N
IC12	8-759-916-01	s IC SN74ALS153N
IC13	8-759-901-94	s IC SN74LS194AN
IC14	8-759-901-94	s IC SN74LS194AN
IC15	8-759-901-94	s IC SN74LS194AN
IC16	8-759-901-94	s IC SN74LS194AN
IC17	8-752-340-75	s IC CXK1206AM
IC18	8-752-340-75	s IC CXK1206AM
IC19	8-752-340-75	s IC CXK1206AM
IC20	8-752-340-75	s IC CXK1206AM
IC21	8-752-340-75	s IC CXK1206AM
IC22	8-752-340-75	s IC CXK1206AM

## (FM-29/FM-29P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC23	8-759-989-55	s IC SN74ALS244BN
IC24	8-759-900-69	s IC SN74ALS74AN
IC25	8-759-945-78	s IC SN74ALS11AN
IC26	8-759-904-18	s IC SN74ALS00AN
IC27	8-759-936-54	s IC SN74ALS175N
IC28	8-759-515-08	s IC SN74ALS374AN
IC29	8-759-904-18	s IC SN74ALS00AN
IC30	8-752-304-30	s IC CX23043
IC31	8-759-912-05	s IC SN74ALS161BN
IC32	8-759-515-08	s IC SN74ALS374AN
IC33	8-759-903-74	s IC SN74LS374N
IC34	8-759-916-01	s IC SN74ALS153N
IC35	8-759-901-94	s IC SN74LS194AN
IC36	8-759-901-94	s IC SN74LS194AN
IC37	8-759-901-94	s IC SN74LS194AN
IC38	8-759-901-94	s IC SN74LS194AN
IC39	8-752-340-75	s IC CXK1206AM
IC40	8-752-340-75	s IC CXK1206AM
IC41	8-752-340-75	s IC CXK1206AM
IC42	8-752-340-75	s IC CXK1206AM
IC43	8-752-340-75	s IC CXK1206AM
IC44	8-752-340-75	s IC CXK1206AM
IC45	8-759-989-55	s IC SN74ALS244BN
IC46	8-759-989-55	s IC SN74ALS244BN
IC47	8-759-989-55	s IC SN74ALS244BN
IC48	8-759-989-55	s IC SN74ALS244BN
IC49	8-759-989-55	s IC SN74ALS244BN
IC50	8-759-912-03	s IC SN74ALS138N
IC51	8-759-912-03	s IC SN74ALS138N
IC52	8-759-983-24	s IC CXD8033Q
IC53	8-759-936-54	s IC SN74ALS175N
IC54	8-759-936-54	s IC SN74ALS175N
IC55	8-759-946-64	s IC SN74ALS04BN
IC56	8-759-904-18	s IC SN74ALS00AN
IC57	8-759-055-72	s IC SN74ALS21AN
IC58	8-759-925-08	s IC SN74ALS174N
IC59	8-759-912-05	s IC SN74ALS161BN
IC60	8-759-515-08	s IC SN74ALS374AN
IC61	8-759-916-01	s IC SN74ALS153N
IC62	8-759-916-01	s IC SN74ALS153N
IC63	8-759-946-64	s IC SN74ALS04BN
IC64	8-759-904-38	s IC SN74ALS32N
IC65	8-759-904-38	s IC SN74ALS32N
IC66	8-759-904-38	s IC SN74ALS32N
IC67	8-759-515-08	s IC SN74ALS374AN
IC68	8-759-515-08	s IC SN74ALS374AN
IC69	8-759-925-08	s IC SN74ALS174N
IC70	8-759-515-08	s IC SN74ALS374AN
IC71	8-759-925-08	s IC SN74ALS174N
IC72	8-759-925-08	s IC SN74ALS174N
IC73	8-759-912-03	s IC SN74ALS138N
IC74	8-759-912-03	s IC SN74ALS138N
IC75	8-759-989-55	s IC SN74ALS244BN
IC76	8-759-989-55	s IC SN74ALS244BN
IC77	8-759-063-42	s IC CXD8264Q
IC78	8-759-989-55	s IC SN74ALS244BN
IC79	8-759-989-55	s IC SN74ALS244BN
IC80	8-752-322-06	s IC CXK5814P-35
IC81	8-752-322-06	s IC CXK5814P-35

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (FM-29/FM-29P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC82	8-759-500-72	s IC SN74ALS157AN
IC83	8-759-500-72	s IC SN74ALS157AN
IC84	8-759-989-55	s IC SN74ALS244BN
IC85	8-752-322-06	s IC CXK5814P-35
IC86	8-759-515-08	s IC SN74ALS374AN
IC87	8-759-515-08	s IC SN74ALS374AN
IC88	8-759-515-08	s IC SN74ALS374AN
IC89	8-759-989-55	s IC SN74ALS244BN
IC90	8-752-322-06	s IC CXK5814P-35
IC91	8-759-989-55	s IC SN74ALS244BN
IC92	8-752-322-06	s IC CXK5814P-35
IC93	8-759-901-94	s IC SN74LS194AN
IC94	8-759-901-94	s IC SN74LS194AN
IC95	8-759-901-94	s IC SN74LS194AN
IC96	8-759-901-94	s IC SN74LS194AN
IC97	8-759-989-55	s IC SN74ALS244BN
IC98	8-752-340-75	s IC CXK1206AM
IC99	8-752-340-75	s IC CXK1206AM
IC100	8-759-515-08	s IC SN74ALS374AN
IC101	8-752-340-75	s IC CXK1206AM
IC102	8-759-925-08	s IC SN74ALS174N
IC103	8-759-925-08	s IC SN74ALS174N
IC104	8-759-990-59	s IC N74F377N
IC105	8-759-990-59	s IC N74F377N
IC106	8-759-904-26	s IC SN74ALS08N
IC107	8-759-999-42	s IC CXD8070K
IC108	8-759-063-38	s IC CXD8276Q
IC109	8-752-340-57	s IC CXK1203Q
IC110	8-752-340-57	s IC CXK1203Q
IC111	8-752-340-57	s IC CXK1203Q
IC112	8-752-340-57	s IC CXK1203Q
IC113	8-752-340-57	s IC CXK1203Q
IC114	8-759-063-43	s IC CXD8263Q
IC115	8-759-063-38	s IC CXD8276Q
IC116	8-759-515-08	s IC SN74ALS374AN
IC117	8-759-925-08	s IC SN74ALS174N
IC118	8-759-515-08	s IC SN74ALS374AN
IC119	8-759-990-59	s IC N74F377N
IC120	8-759-990-59	s IC N74F377N
IC121	8-752-340-57	s IC CXK1203Q
IC122	8-759-515-08	s IC SN74ALS374AN
IC123	8-759-515-08	s IC SN74ALS374AN
IC201	8-759-912-03	s IC SN74ALS138N
IC202	8-759-901-64	s IC SN74LS164N
IC203	8-759-936-53	s IC SN74ALS151N
IC204	8-759-900-69	s IC SN74ALS74AN
IC205	8-759-900-69	s IC SN74ALS74AN
IC206	8-759-925-08	s IC SN74ALS174N
L1	1-412-525-31	s INDUCTOR 10uH
PS1	A1-532-984-11	s LINK, IC 2A
RB1	1-231-410-00	s RESISTOR BLOCK 10Kx8
RB2	1-231-410-00	s RESISTOR BLOCK 10Kx8
RB3	1-231-533-00	s RESISTOR BLOCK 10Kx4
S1	1-553-925-00	s SWITCH, DIGITAL
S2	1-553-925-00	s SWITCH, DIGITAL
S3	1-554-027-00	s SWITCH, DIGITAL
S4	1-554-027-00	s SWITCH, DIGITAL

## (FM-29/FM-29P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
S5	1-554-027-00	s SWITCH, DIGITAL

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## KY-223 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-686-A	o MOUNTED CIRCUIT BOARD, KY-223
1pc	2-139-131-01	o HEAT SINK, CON.
6pcs	2-140-311-04	s KEY TOP
1pc	3-177-559-01	o CHIP (A), SW
4pcs	3-178-140-01	o SPACER
2pcs	3-708-563-01	o CAP
21pcs	4-928-315-01	s KEY TOP
1pc	7-682-950-01	s SCREW +PSW 3X12
BZ1	1-529-025-00	s BUZZER
C1	1-126-948-11	s ELECT 100uF 20% 35V
C3	1-126-948-11	s ELECT 100uF 20% 35V
C5	1-126-948-11	s ELECT 100uF 20% 35V
C7	1-126-948-11	s ELECT 100uF 20% 35V
C10	1-124-589-11	s ELECT 47uF 20% 16V
C61	1-124-589-11	s ELECT 47uF 20% 16V
C71	1-124-589-11	s ELECT 47uF 20% 16V
C123	1-124-257-00	s ELECT 2.2uF 20% 50V
C124	1-163-145-00	s CERAMIC, CHIP 0.0015uF 5X 50V
C127	1-124-589-11	s ELECT 47uF 20% 16V
C129	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-699-11	o CONNECTOR, LCSC 26P, MALE
CN2	1-506-480-11	s CONNECTOR, 15P, MALE
CN3	1-506-480-11	s CONNECTOR, 15P, MALE
CN4	1-506-480-11	s CONNECTOR, 15P, MALE
CN5	1-506-469-11	s CONNECTOR 4P, MALE
CN6	1-506-469-11	s CONNECTOR 4P, MALE
CN7	1-506-475-11	s CONNECTOR, 10P, MALE
CN8	1-506-475-11	s CONNECTOR, 10P, MALE
CN9	1-506-469-11	s CONNECTOR 4P, MALE
CNI14	1-526-659-00	o SOCKET, IC 28P
D38	8-719-979-87	s LED LD-701MG, GRN
D39	8-719-979-87	s LED LD-701MG, GRN
D40	8-719-979-87	s LED LD-701MG, GRN
D46	8-719-979-87	s LED LD-701MG, GRN
D47	8-719-979-87	s LED LD-701MG, GRN
D48	8-719-979-87	s LED LD-701MG, GRN
D50	8-719-979-87	s LED LD-701MG, GRN
D51	8-719-979-87	s LED LD-701MG, GRN
D52	8-719-979-87	s LED LD-701MG, GRN
D53	8-719-979-87	s LED LD-701MG, GRN
D54	8-719-979-87	s LED LD-701MG, GRN
D55	8-719-979-87	s LED LD-701MG, GRN
D56	8-719-979-87	s LED LD-701MG, GRN
D57	8-719-979-87	s LED LD-701MG, GRN
D58	8-719-979-87	s LED LD-701MG, GRN
D59	8-719-979-87	s LED LD-701MG, GRN
D60	8-719-979-87	s LED LD-701MG, GRN
D61	8-719-979-87	s LED LD-701MG, GRN
D62	8-719-979-87	s LED LD-701MG, GRN
D67	8-719-979-87	s LED LD-701MG, GRN
D68	8-719-979-87	s LED LD-701MG, GRN
D69	8-719-979-87	s LED LD-701MG, GRN
D80	8-719-979-87	s LED LD-701MG, GRN
D81	8-719-979-87	s LED LD-701MG, GRN
D82	8-719-979-87	s LED LD-701MG, GRN
D86	8-719-979-87	s LED LD-701MG, GRN

## (KY-223 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
D88	8-719-979-87	s LED LD-701MG, GRN
D90	8-719-979-87	s LED LD-701MG, GRN
D92	8-719-979-87	s LED LD-701MG, GRN
D93	8-719-979-87	s LED LD-701MG, GRN
D94	8-719-979-87	s LED LD-701MG, GRN
D95	8-719-979-87	s LED LD-701MG, GRN
D101	8-719-400-18	s DIODE MA152WK
D102	8-719-109-84	s DIODE RD5.1ES-B1
D214	8-719-030-51	s DIODE LD-010MW
D224	8-719-030-51	s DIODE LD-010MW
D235	8-719-979-87	s LED LD-701MG, GRN
IC1	8-749-920-71	s IC SI3522V
IC2	8-759-929-86	s IC SN74LS14NS
IC3	8-759-970-26	s IC PST523C
IC4	8-759-926-32	s IC AM26LS32PC
IC5	8-759-926-31	s IC AM26LS31PC
IC6	8-759-926-49	s IC SN74HC245NS
IC7	8-759-926-68	s IC SN74HC375ANS
IC8	8-795-926-80	s IC SN74HC573BNS
IC9	8-795-926-80	s IC SN74HC573BNS
IC10	8-752-800-46	s IC CXQ70108P-8
IC11	8-759-922-49	s IC SN74LS74ANS
IC12	8-759-925-78	s IC SN74HC10NS
IC13	8-759-926-11	s IC SN74HC138NS
IC14	8-759-088-10	o IC 27C256-NPKY14V1.01, EPROM
IC15	8-752-337-81	s IC CXK58257AM-12LL
IC16	8-752-806-91	s IC CXQ71054P
IC17	8-759-107-51	s IC CXQ71051P
IC18	8-759-006-95	s IC MC74HC154N
IC19	8-759-106-58	s IC UPD7004C
IC20	8-759-009-06	s IC MC14052BF
IC21	8-759-009-06	s IC MC14052BF
IC22	8-759-927-46	s IC SN74HC00NS
IC23	8-759-927-23	s IC SN74HCT574NS
IC24	8-759-927-23	s IC SN74HCT574NS
IC25	8-759-930-93	s IC SN74LS283NS
IC26	8-759-241-03	s IC TC74HC191AF
IC27	8-759-241-03	s IC TC74HC191AF
IC28	8-759-241-03	s IC TC74HC191AF
IC29	8-759-241-03	s IC TC74HC191AF
IC30	8-759-241-03	s IC TC74HC191AF
IC31	8-759-241-03	s IC TC74HC191AF
IC32	8-759-930-93	s IC SN74LS283NS
IC33	8-759-930-93	s IC SN74LS283NS
IC34	8-759-925-74	s IC TC74HC04NS
IC35	8-759-926-48	s IC SN74HC244NS
IC36	8-759-926-48	s IC SN74HC244NS
IC37	8-759-926-48	s IC SN74HC244NS
IC38	8-759-926-48	s IC SN74HC244NS
IC39	8-759-926-48	s IC SN74HC244NS
IC40	8-759-926-48	s IC SN74HC244NS
IC41	8-759-926-48	s IC SN74HC244NS
IC42	8-759-926-48	s IC SN74HC244NS
IC43	8-759-926-11	s IC SN74HC138NS
IC44	8-759-006-95	s IC MC74HC154N
IC45	8-759-926-48	s IC SN74HC244NS
IC46	8-759-926-48	s IC SN74HC244NS
IC47	8-759-926-82	s IC SN74HC574ANS

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (KY-223 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC48	8-759-926-82	s IC SN74HC574ANS
IC49	8-759-206-41	s IC TD62083AP
IC50	8-759-926-82	s IC SN74HC574ANS
IC51	8-759-206-41	s IC TD62083AP
IC52	8-759-926-82	s IC SN74HC574ANS

IC53	8-759-926-82	s IC SN74HC574ANS
IC54	8-759-930-77	s IC SN74LS247NS
IC55	8-759-930-77	s IC SN74LS247NS
IC56	8-759-926-82	s IC SN74HC574ANS
IC57	8-759-206-41	s IC TD62083AP

IC58	8-759-926-82	s IC SN74HC574ANS
IC59	8-759-206-41	s IC TD62083AP
IC60	8-759-926-82	s IC SN74HC574ANS
IC61	8-759-206-41	s IC TD62083AP
IC62	8-759-926-82	s IC SN74HC574ANS

IC63	8-759-206-41	s IC TD62083AP
IC64	8-759-926-82	s IC SN74HC574ANS
IC65	8-759-206-41	s IC TD62083AP
IC66	8-759-926-82	s IC SN74HC574ANS
IC67	8-759-206-41	s IC TD62083AP

IC68	8-759-926-82	s IC SN74HC574ANS
IC69	8-759-206-41	s IC TD62083AP
IC70	8-759-926-82	s IC SN74HC574ANS
IC71	8-759-206-41	s IC TD62083AP
IC72	8-759-926-82	s IC SN74HC574ANS

IC73	8-759-930-77	s IC SN74LS247NS
IC74	8-759-930-77	s IC SN74LS247NS
IC75	8-759-926-82	s IC SN74HC574ANS
IC76	8-759-930-77	s IC SN74LS247NS
IC77	8-759-926-82	s IC SN74HC574ANS

IC78	8-759-206-41	s IC TD62083AP
IC79	8-759-926-82	s IC SN74HC574ANS
IC80	8-759-206-41	s IC TD62083AP
IC81	8-759-926-82	s IC SN74HC574ANS
IC82	8-759-206-41	s IC TD62083AP

IC83	8-759-926-82	s IC SN74HC574ANS
IC84	8-759-206-41	s IC TD62083AP
IC85	8-759-926-82	s IC SN74HC574ANS
IC86	8-759-206-41	s IC TD62083AP
IC87	8-759-926-82	s IC SN74HC574ANS

IC88	8-759-206-41	s IC TD62083AP
IC89	8-759-907-81	s IC SN74LS221NS
IC90	8-759-206-41	s IC TD62083AP
IC91	8-759-206-41	s IC TD62083AP

L1	1-412-525-31	s INDUCTOR 10uH
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ND7	8-719-906-41	s LED GL-9D03D, RED
ND8	8-719-906-41	s LED GL-9D03D, RED
ND9	8-719-906-41	s LED GL-9D03D, RED
ND10	8-719-906-41	s LED GL-9D03D, RED
ND11	8-719-906-41	s LED GL-9D03D, RED

ND12	8-719-906-41	s LED GL-9D03D, RED
ND13	8-719-906-41	s LED GL-9D03D, RED

PS1	A1-532-637-00	s LINK, IC 1.0A
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R3	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R4	1-216-043-00	s METAL, CHIP 560 5% 1/10W
R5	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R6	1-216-025-00	s METAL, CHIP 100 5% 1/10W

## (KY-223 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R7	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R8	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R9	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R10	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R11	1-216-097-00	s METAL, CHIP 100K 5% 1/10W

R12	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R14	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R15	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R16	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R17	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R18	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R19	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R20	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R21	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R22	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R23	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R24	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R25	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R26	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R27	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R28	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R29	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R30	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R31	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R32	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R33	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R34	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R35	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R36	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R37	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R38	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R39	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R40	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R41	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R42	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R43	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R44	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R45	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R46	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R47	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R48	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R49	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R50	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R51	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R52	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R53	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R54	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R55	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R56	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R57	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R58	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R59	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R60	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R61	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R62	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

R63	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R64	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R65	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R66	1-216-073-00	s METAL, CHIP 10K 5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



Ref. No. or Q'ty	Part No.	SP	Description
R67	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R68	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R69	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R70	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R71	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R72	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R73	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R74	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R75	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R76	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R77	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R78	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R79	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R80	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R81	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R82	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R83	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R84	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R85	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R86	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R87	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R88	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R89	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R90	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R91	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R92	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R93	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R94	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R95	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R96	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R97	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R98	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R99	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R100	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R101	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R102	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R103	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R104	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R105	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R106	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R107	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R108	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R109	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R110	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R111	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R112	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R113	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R114	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R115	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R116	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R117	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R118	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R119	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R120	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R121	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R122	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R123	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R124	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R125	1-216-033-00	s	METAL, CHIP 220 5% 1/10W

[illegible]

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DFS-500/500P



[illegible]

Ref. No. or Q'ty	Part No.	SP Description
R244	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R245	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R246	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R247	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R248	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R249	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R250	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R251	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R252	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R253	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R254	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R255	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R256	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R257	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R258	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R259	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R260	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R261	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R262	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R263	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R264	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R265	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R266	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R267	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R268	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R269	1-216-121-00	s METAL, CHIP 1M 5% 1/10W
R270	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R271	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R272	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R273	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R274	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R275	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R276	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R277	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R278	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R279	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R280	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R281	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R282	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R283	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R284	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R285	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R286	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R287	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R288	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R289	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R290	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R291	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R292	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R293	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R294	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R295	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R296	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R297	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R298	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R299	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R300	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R301	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R302	1-216-029-00	s METAL, CHIP 150 5% 1/10W

DFS-500/50



## (KY-223 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R303	1-216-053-00 s	METAL, CHIP 1.5K 5% 1/10W
R304	1-216-025-00 s	METAL, CHIP 100 5% 1/10W
R305	1-216-029-00 s	METAL, CHIP 150 5% 1/10W
RV3	1-223-247-11 s	RES, VAR CARBON 10Kx2
RV4	1-223-247-11 s	RES, VAR CARBON 10Kx2
S20	1-571-654-21 s	SWITCH, PUSH
S21	1-571-654-21 s	SWITCH, PUSH
S22	1-571-654-21 s	SWITCH, PUSH
S23	1-571-654-21 s	SWITCH, PUSH
S24	1-571-654-21 s	SWITCH, PUSH
S25	1-571-653-21 s	SWITCH, PUSH
S26	1-571-654-21 s	SWITCH, PUSH
S27	1-571-654-21 s	SWITCH, PUSH
S28	1-571-654-21 s	SWITCH, PUSH
S29	1-571-654-21 s	SWITCH, PUSH
S30	1-692-347-11 s	SWITCH, PUSH
S31	1-571-653-21 s	SWITCH, PUSH
S32	1-571-654-21 s	SWITCH, PUSH
S33	1-571-653-21 s	SWITCH, PUSH
S34	1-571-653-21 s	SWITCH, PUSH
S35	1-571-653-21 s	SWITCH, PUSH
S36	1-571-654-21 s	SWITCH, PUSH
S37	1-571-654-21 s	SWITCH, PUSH
S38	1-571-654-21 s	SWITCH, PUSH
S39	1-571-654-21 s	SWITCH, PUSH
S40	1-692-347-11 s	SWITCH, PUSH
S41	1-692-347-11 s	SWITCH, PUSH
S42	1-692-347-11 s	SWITCH, PUSH
S43	1-692-347-11 s	SWITCH, PUSH
S44	1-692-347-11 s	SWITCH, PUSH
S45	1-692-347-11 s	SWITCH, PUSH
S46	1-692-347-11 s	SWITCH, PUSH
S47	1-692-347-11 s	SWITCH, PUSH
S48	1-692-347-11 s	SWITCH, PUSH
S49	1-692-347-11 s	SWITCH, PUSH
S50	1-571-653-21 s	SWITCH, PUSH
S51	1-571-654-21 s	SWITCH, PUSH
S52	1-571-654-21 s	SWITCH, PUSH
S53	1-571-654-21 s	SWITCH, PUSH
S54	1-571-654-21 s	SWITCH, PUSH
S55	1-692-348-11 s	SWITCH, PUSH
S56	1-571-654-21 s	SWITCH, PUSH
S57	1-571-654-21 s	SWITCH, PUSH
S58	1-692-348-11 s	SWITCH, PUSH
S59	1-692-348-11 s	SWITCH, PUSH
S60	1-692-348-11 s	SWITCH, PUSH
S61	1-692-348-11 s	SWITCH, PUSH
S62	1-692-348-11 s	SWITCH, PUSH
S63	1-692-348-11 s	SWITCH, PUSH
S64	1-692-348-11 s	SWITCH, PUSH
S65	1-692-348-11 s	SWITCH, PUSH
S66	1-692-348-11 s	SWITCH, PUSH
S67	1-692-348-11 s	SWITCH, PUSH
S68	1-692-348-11 s	SWITCH, PUSH
S69	1-692-348-11 s	SWITCH, PUSH
S70	1-692-348-11 s	SWITCH, PUSH
S71	1-692-348-11 s	SWITCH, PUSH
S72	1-692-348-11 s	SWITCH, PUSH

## (KY-223 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
S73	1-692-348-11 s	SWITCH, PUSH
S74	1-571-654-21 s	SWITCH, PUSH
X1	1-577-255-11 s	OSC, CRYSTAL 8.00 MHz

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



KY-225 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-687-A	o MOUNTED CIRCUIT BOARD, KY-225
6pcs	2-140-311-04	s KEY TOP
6pcs	3-178-140-01	o SPACER
12pcs	4-928-315-01	s KEY TOP
C1	1-124-589-11	s ELECT 47uF 20% 16V
C3	1-124-589-11	s ELECT 47uF 20% 16V
C26	1-124-589-11	s ELECT 47uF 20% 16V
C46	1-124-589-11	s ELECT 47uF 20% 16V
C48	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-480-11	s CONNECTOR, 15P, MALE
CN2	1-506-480-11	s CONNECTOR, 15P, MALE
CN3	1-506-480-11	s CONNECTOR, 15P, MALE
CN4	1-506-469-11	s CONNECTOR 4P, MALE
CN5	1-506-475-11	s CONNECTOR, 10P, MALE
CN6	1-506-469-11	s CONNECTOR 4P, MALE
D6	8-719-979-87	s LED LD-701MG, GRN
D7	8-719-979-87	s LED LD-701MG, GRN
D8	8-719-979-87	s LED LD-701MG, GRN
D9	8-719-979-87	s LED LD-701MG, GRN
D10	8-719-979-87	s LED LD-701MG, GRN
D11	8-719-979-87	s LED LD-701MG, GRN
D12	8-719-979-87	s LED LD-701MG, GRN
D13	8-719-979-87	s LED LD-701MG, GRN
D14	8-719-979-87	s LED LD-701MG, GRN
D16	8-719-979-87	s LED LD-701MG, GRN
D17	8-719-979-87	s LED LD-701MG, GRN
D18	8-719-979-87	s LED LD-701MG, GRN
D19	8-719-979-87	s LED LD-701MG, GRN
D21	8-719-979-87	s LED LD-701MG, GRN
D22	8-719-979-87	s LED LD-701MG, GRN
D23	8-719-979-87	s LED LD-701MG, GRN
D24	8-719-979-87	s LED LD-701MG, GRN
D26	8-719-979-87	s LED LD-701MG, GRN
D27	8-719-979-87	s LED LD-701MG, GRN
D28	8-719-979-87	s LED LD-701MG, GRN
IC1	8-759-926-11	s IC SN74HC138NS
IC2	8-759-926-11	s IC SN74HC138NS
IC3	8-759-926-48	s IC SN74HC244NS
IC4	8-759-926-48	s IC SN74HC244NS
IC5	8-759-926-48	s IC SN74HC244NS
IC6	8-759-926-48	s IC SN74HC244NS
IC7	8-759-926-82	s IC SN74HC574ANS
IC8	8-759-930-77	s IC SN74LS247NS
IC9	8-759-930-77	s IC SN74LS247NS
IC10	8-759-926-82	s IC SN74HC574ANS
IC11	8-759-206-41	s IC TD62083AP
IC12	8-759-926-82	s IC SN74HC574ANS
IC13	8-759-206-41	s IC TD62083AP
IC14	8-759-926-82	s IC SN74HC574ANS
IC15	8-759-206-41	s IC TD62083AP
IC16	8-759-926-82	s IC SN74HC574ANS
IC17	8-759-206-41	s IC TD62083AP
IC18	8-759-926-82	s IC SN74HC574ANS
IC19	8-759-930-77	s IC SN74LS247NS
IC20	8-759-930-77	s IC SN74LS247NS
IC21	8-759-926-82	s IC SN74HC574ANS
IC22	8-759-206-41	s IC TD62083AP
IC23	8-759-926-82	s IC SN74HC574ANS

(KY-225 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC24	8-759-930-77	s IC SN74LS247NS
IC25	8-759-930-77	s IC SN74LS247NS
IC26	8-759-009-06	s IC MC14052BF
ND1	8-719-906-41	s LED GL-9D03D, RED
ND2	8-719-906-41	s LED GL-9D03D, RED
ND3	8-719-906-41	s LED GL-9D03D, RED
ND4	8-719-906-41	s LED GL-9D03D, RED
ND5	8-719-906-41	s LED GL-9D03D, RED
ND6	8-719-906-41	s LED GL-9D03D, RED
R1	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R2	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R3	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R4	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R5	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R6	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R7	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R8	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R9	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R10	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R11	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R12	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R13	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R14	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R33	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R34	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R35	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R36	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R37	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R38	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R39	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R40	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R41	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R42	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R43	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R44	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R45	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R46	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R47	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R48	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R49	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R51	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R52	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R53	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R54	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R55	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R56	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R57	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R58	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R59	1-216-097-00	s METAL, CHIP 100K 5% 1/10W
R60	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R61	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R62	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R63	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R64	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R65	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R66	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R67	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R68	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (KY-225 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R69	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R70	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R71	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R72	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R73	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R74	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R75	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R76	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R77	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R78	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R79	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R80	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R81	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R82	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R83	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R84	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R85	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R86	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R87	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R88	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R89	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R90	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R91	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R92	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R93	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R94	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R95	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R96	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R97	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R98	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R99	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R100	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R101	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R102	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R103	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R104	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R105	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R106	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R107	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R108	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R109	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R110	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R111	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R112	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R113	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R114	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R115	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R116	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R117	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R118	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R119	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R120	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R121	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R122	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R123	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R124	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R125	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R126	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R127	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W

## (KY-225 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R128	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R129	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R130	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R131	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R132	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R133	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R134	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R135	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R136	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R137	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R138	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R139	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R140	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R141	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R142	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R143	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R144	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R145	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R146	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R147	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R148	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R149	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R150	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R151	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R152	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R153	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R154	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R155	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R156	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R157	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R158	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R159	1-216-029-00	s METAL, CHIP 150 5% 1/10W
RV1	1-223-247-11	s RES, VAR CARBON 10Kx2
RV2	1-223-247-11	s RES, VAR CARBON 10Kx2
S1	1-571-654-21	s SWITCH, PUSH
S2	1-571-654-21	s SWITCH, PUSH
S3	1-571-654-21	s SWITCH, PUSH
S4	1-571-654-21	s SWITCH, PUSH
S5	1-571-654-21	s SWITCH, PUSH
S6	1-571-653-21	s SWITCH, PUSH
S7	1-571-653-21	s SWITCH, PUSH
S8	1-571-653-21	s SWITCH, PUSH
S9	1-571-654-21	s SWITCH, PUSH
S10	1-571-653-21	s SWITCH, PUSH
S11	1-571-654-21	s SWITCH, PUSH
S12	1-571-653-21	s SWITCH, PUSH
S13	1-571-654-21	s SWITCH, PUSH
S14	1-571-653-21	s SWITCH, PUSH
S15	1-571-654-21	s SWITCH, PUSH
S16	1-571-654-21	s SWITCH, PUSH
S17	1-571-654-21	s SWITCH, PUSH
S19	1-571-654-21	s SWITCH, PUSH

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



# KY-226 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-688-A	o MOUNTED CIRCUIT BOARD, KY-226
4pcs	7-685-646-79	s SCREW +BVTP 3X8 TYPE2 N-S
C1	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-469-11	s CONNECTOR 4P, MALE
RV1	1-238-724-11	s RES, VAR(STICK) CARBON 10Kx2

# LE-55B BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-620-338-11	o PRINTED CIRCUIT BOARD, LE-55
4pcs	3-674-390-00	o HOLDER (B), LED
CN1	1-506-482-11	s CONNECTOR 3P, MALE
D1	8-719-812-32	s LED TLY123, YEL
D2	8-719-812-32	s LED TLY123, YEL
D3	8-719-812-32	s LED TLY123, YEL
D4	8-719-812-32	s LED TLY123, YEL
R1	1-249-408-11	s CARBON 180 5% 1/4W
R2	1-249-408-11	s CARBON 180 5% 1/4W
R3	1-249-408-11	s CARBON 180 5% 1/4W
R4	1-249-408-11	s CARBON 180 5% 1/4W

# MB-385 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-678-A	o MOUNTED CIRCUIT BOARD, MB-385
28pcs	7-685-871-09	s SCREW +BVTT 3X6 (S)
CN4	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN5	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN6	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN7	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN8	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN9	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN10	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN11	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN12	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN13	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN14	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN15	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN16	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN18	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN22	1-506-468-11	s CONNECTOR 3P, MALE
CN23	1-564-241-00	o CONNECTOR, 4P, MALE
CN24	1-564-241-00	o CONNECTOR, 4P, MALE
CN25	1-564-242-00	o CONNECTOR, 5P

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## MY-54 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-679-A	o MOUNTED CIRCUIT BOARD, MY-54
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
C1	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C2	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C3	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C4	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C5	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C6	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C7	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C8	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C10	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C11	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C12	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C13	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C14	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C15	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C16	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C17	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C18	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C19	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C20	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C21	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C22	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C23	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C24	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C25	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C26	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C27	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C28	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C29	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C30	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C31	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C32	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C33	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C34	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C35	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C36	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C37	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C38	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C39	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C40	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C41	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C42	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C43	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C44	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C45	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C46	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C47	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C48	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C49	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C50	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C51	1-161-055-00	s CERAMIC 0.022uF 10% 50V

## (MY-54 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C52	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C53	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C54	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C55	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C56	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C57	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C58	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C59	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C60	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C61	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C62	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C63	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C64	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C65	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C66	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C67	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C68	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C69	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C70	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C71	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C72	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C73	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C74	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C75	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C76	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C77	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C78	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C79	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C80	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C81	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C82	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C83	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C84	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C85	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C86	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C87	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C88	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C89	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C90	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C91	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C92	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C93	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C94	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C95	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C96	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C97	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C98	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C99	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C100	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C101	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C102	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C103	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C104	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C105	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C106	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C107	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C108	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C109	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C110	1-161-055-00	s CERAMIC 0.022uF 10% 50V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (MY-54 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C111	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C112	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C113	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C120	1-124-584-00	s ELECT 100uF 20% 10V
C121	1-124-584-00	s ELECT 100uF 20% 10V
C122	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C123	1-124-584-00	s ELECT 100uF 20% 10V
C124	1-124-584-00	s ELECT 100uF 20% 10V
C125	1-124-584-00	s ELECT 100uF 20% 10V
C126	1-124-584-00	s ELECT 100uF 20% 10V
C127	1-124-584-00	s ELECT 100uF 20% 10V
CN7	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN8	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN9	1-506-748-11	o CONNECTOR, DIN 96P, MALE
IC1	8-759-902-44	s IC SN74LS244N
IC2	8-759-902-44	s IC SN74LS244N
IC3	8-759-902-44	s IC SN74LS244N
IC4	8-759-902-44	s IC SN74LS244N
IC5	8-759-989-55	s IC SN74ALS244BN
IC6	8-759-900-32	s IC SN74LS32N
IC7	8-759-901-75	s IC SN74LS175N
IC8	8-759-900-32	s IC SN74LS32N
IC10	8-759-936-54	s IC SN74ALS175N
IC11	8-759-900-04	s IC SN74LS04N
IC12	8-759-936-54	s IC SN74ALS175N
IC13	8-759-904-18	s IC SN74ALS00AN
IC14	8-759-912-03	s IC SN74ALS138N
IC15	8-759-912-03	s IC SN74ALS138N
IC16	8-759-901-74	s IC SN74LS174N
IC17	8-759-901-74	s IC SN74LS174N
IC18	8-759-901-74	s IC SN74LS174N
IC19	8-759-903-74	s IC SN74LS374N
IC20	8-759-063-39	s IC CXD8267Q
IC21	8-759-983-24	s IC CXD8033Q
IC22	8-759-983-24	s IC CXD8033Q
IC23	8-759-983-24	s IC CXD8033Q
IC24	8-759-997-10	s IC SN74ALS139N
IC25	8-759-515-08	s IC SN74ALS374AN
IC26	8-759-900-00	s IC SN74LS00N
IC27	8-759-900-32	s IC SN74LS32N
IC28	8-759-900-74	s IC SN74LS74AN
IC29	8-759-900-08	s IC SN74LS08N
IC30	8-759-900-08	s IC SN74LS08N
IC31	8-759-900-08	s IC SN74LS08N
IC32	8-759-900-08	s IC SN74LS08N
IC33	8-759-900-08	s IC SN74LS08N
IC34	8-759-900-08	s IC SN74LS08N
IC35	8-759-063-40	s IC CXD8266Q
IC36	8-759-063-40	s IC CXD8266Q
IC37	8-759-063-40	s IC CXD8266Q
IC38	8-759-063-40	s IC CXD8266Q
IC39	8-752-333-41	s IC CXK54256P-35
IC40	8-752-333-41	s IC CXK54256P-35
IC41	8-752-333-41	s IC CXK54256P-35
IC42	8-752-333-41	s IC CXK54256P-35
IC43	8-752-333-41	s IC CXK54256P-35
IC44	8-752-333-41	s IC CXK54256P-35
IC45	8-752-333-41	s IC CXK54256P-35

## (MY-54 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC46	8-752-333-41	s IC CXK54256P-35
IC47	8-752-333-41	s IC CXK54256P-35
IC48	8-752-333-41	s IC CXK54256P-35
IC49	8-752-333-41	s IC CXK54256P-35
IC50	8-752-333-41	s IC CXK54256P-35
IC51	8-752-333-41	s IC CXK54256P-35
IC52	8-752-333-41	s IC CXK54256P-35
IC53	8-752-333-41	s IC CXK54256P-35
IC54	8-752-333-41	s IC CXK54256P-35
IC55	8-759-063-39	s IC CXD8267Q
IC56	8-759-063-39	s IC CXD8267Q
IC57	8-759-063-40	s IC CXD8266Q
IC58	8-759-063-40	s IC CXD8266Q
IC59	8-752-333-59	s IC CXK58258SP-35
IC60	8-752-333-59	s IC CXK58258SP-35
IC61	8-752-333-59	s IC CXK58258SP-35
IC62	8-752-333-59	s IC CXK58258SP-35
IC63	8-752-333-59	s IC CXK58258SP-35
IC64	8-752-333-59	s IC CXK58258SP-35
IC65	8-752-333-59	s IC CXK58258SP-35
IC66	8-752-333-59	s IC CXK58258SP-35
IC67	8-759-063-39	s IC CXD8267Q
IC68	8-759-063-39	s IC CXD8267Q
IC69	8-759-063-40	s IC CXD8266Q
IC70	8-759-063-40	s IC CXD8266Q
IC71	8-759-063-40	s IC CXD8266Q
IC72	8-759-063-40	s IC CXD8266Q
IC73	8-752-333-48	s IC CXK5464AP-35
IC74	8-752-333-48	s IC CXK5464AP-35
IC75	8-752-333-48	s IC CXK5464AP-35
IC76	8-752-333-48	s IC CXK5464AP-35
IC77	8-752-333-48	s IC CXK5464AP-35
IC78	8-752-333-48	s IC CXK5464AP-35
IC79	8-752-333-48	s IC CXK5464AP-35
IC80	8-752-333-48	s IC CXK5464AP-35
IC81	8-752-333-48	s IC CXK5464AP-35
IC82	8-752-333-48	s IC CXK5464AP-35
IC83	8-752-333-48	s IC CXK5464AP-35
IC84	8-752-333-48	s IC CXK5464AP-35
IC85	8-752-333-48	s IC CXK5464AP-35
IC86	8-752-333-48	s IC CXK5464AP-35
IC87	8-752-333-48	s IC CXK5464AP-35
IC88	8-752-333-48	s IC CXK5464AP-35
IC89	8-759-063-39	s IC CXD8267Q
IC90	8-759-063-39	s IC CXD8267Q
IC91	8-759-500-72	s IC SN74ALS157AN
IC92	8-759-500-72	s IC SN74ALS157AN
IC93	8-759-500-72	s IC SN74ALS157AN
IC94	8-759-500-72	s IC SN74ALS157AN
IC95	8-759-916-01	s IC SN74ALS153N
IC96	8-759-903-74	s IC SN74LS374N
IC97	8-759-903-74	s IC SN74LS374N
IC98	8-759-063-41	s IC CXD8265Q
IC99	8-759-063-41	s IC CXD8265Q
IC100	8-759-063-41	s IC CXD8265Q
IC101	8-759-063-41	s IC CXD8265Q
IC102	8-759-904-79	s IC 74F00PC
IC103	8-759-904-81	s IC 74F08PC
IC104	8-759-946-64	s IC SN74ALS04BN

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (MY-54 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC105	8-759-946-64	s IC SN74ALS04BN
IC106	8-759-500-72	s IC SN74ALS157AN
IC107	8-759-903-74	s IC SN74LS374N
IC108	8-759-901-75	s IC SN74LS175N
IC109	8-759-903-97	s IC SN74LS684N
IC110	8-759-936-53	s IC SN74ALS151N
IC111	8-759-904-83	s IC 74F32PC
IC112	8-759-904-83	s IC 74F32PC
IC113	8-759-901-64	s IC SN74LS164N
L1	1-412-525-31	s INDUCTOR 10uH
PS1	Δ1-532-675-00	s LINK, IC 1.5A
R1	1-249-441-11	s CARBON 100K 5% 1/4W
R2	1-249-441-11	s CARBON 100K 5% 1/4W
R3	1-249-441-11	s CARBON 100K 5% 1/4W
R4	1-249-441-11	s CARBON 100K 5% 1/4W
R5	1-249-441-11	s CARBON 100K 5% 1/4W
R6	1-249-441-11	s CARBON 100K 5% 1/4W
RB1	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB2	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB3	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB4	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB5	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB6	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB7	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB8	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB10	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB11	1-231-411-00	s RESISTOR BLOCK 100Kx8
RB12	1-231-411-00	s RESISTOR BLOCK 100Kx8

## PU-78 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-683-A	o MOUNTED CIRCUIT BOARD, PU-78
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
1pc	3-178-157-01	o PLATE, SHIELD
8pcs	4-886-821-11	s SCREW, S TIGHT, +PTTWH 3X6
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-628-254-40	s SCREW +PS 2.6X12
C1	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C2	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C3	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C4	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C5	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C6	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C7	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C8	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C9	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C10	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C11	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C12	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C13	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C14	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C15	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C16	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C17	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C18	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C19	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C20	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C21	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C22	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C23	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C24	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C25	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C26	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C27	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C28	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C29	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C30	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C31	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C32	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C33	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C34	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C35	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C36	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C37	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C38	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C39	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C40	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C41	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C42	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C43	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C44	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C45	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C46	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C47	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C48	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C49	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C50	1-161-055-00	s CERAMIC 0.022uF 10% 50V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (PU-78 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C51	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C52	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C53	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C54	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C55	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C56	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C57	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C58	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C59	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C60	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C61	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C62	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C63	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C64	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C65	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C66	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C67	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C68	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C69	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C70	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C71	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C72	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C73	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C74	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C75	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C76	1-124-584-00	s ELECT 100uF 20% 10V
C77	1-124-584-00	s ELECT 100uF 20% 10V
C78	1-161-772-11	s CERAMIC 0.1uF 10% 25V
C79	1-124-584-00	s ELECT 100uF 20% 10V
C80	1-124-584-00	s ELECT 100uF 20% 10V
C81	1-124-584-00	s ELECT 100uF 20% 10V
C82	1-124-584-00	s ELECT 100uF 20% 10V
C83	1-124-584-00	s ELECT 100uF 20% 10V
C101	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C102	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C103	1-161-055-00	s CERAMIC 0.022uF 10% 50V
C104	1-161-055-00	s CERAMIC 0.022uF 10% 50V
CN10	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN11	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN12	1-506-748-11	o CONNECTOR, DIN 96P, MALE
IC1	8-759-989-55	s IC SN74ALS244BN
IC2	8-759-989-55	s IC SN74ALS244BN
IC3	8-759-989-55	s IC SN74ALS244BN
IC4	8-759-989-55	s IC SN74ALS244BN
IC5	8-759-989-55	s IC SN74ALS244BN
IC6	8-759-946-64	s IC SN74ALS04BN
IC7	8-759-945-73	s IC SN74ALS10AN
IC8	8-759-912-03	s IC SN74ALS138N
IC9	8-759-912-03	s IC SN74ALS138N
IC10	8-759-912-03	s IC SN74ALS138N
IC11	8-759-904-38	s IC SN74ALS32N
IC12	8-759-904-26	s IC SN74ALS08N
IC13	8-759-500-72	s IC SN74ALS157AN
IC14	8-759-515-08	s IC SN74ALS374AN
IC15	8-759-900-69	s IC SN74ALS74AN
IC16	8-759-900-69	s IC SN74ALS74AN
IC17	8-759-983-24	s IC CXD8033Q
IC18	8-759-063-42	s IC CXD8264Q

## (PU-78 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC19	8-759-989-55	s IC SN74ALS244BN
IC20	8-759-989-55	s IC SN74ALS244BN
IC21	8-759-989-55	s IC SN74ALS244BN
IC22	8-759-989-55	s IC SN74ALS244BN
IC23	8-752-322-06	s IC CXK5814P-35
IC24	8-752-322-06	s IC CXK5814P-35
IC25	8-759-983-25	s IC CXD8031Q
IC26	8-759-983-25	s IC CXD8031Q
IC27	8-759-983-25	s IC CXD8031Q
IC28	8-759-983-25	s IC CXD8031Q
IC29	8-759-989-55	s IC SN74ALS244BN
IC30	8-759-989-55	s IC SN74ALS244BN
IC31	8-759-989-55	s IC SN74ALS244BN
IC32	8-752-322-06	s IC CXK5814P-35
IC33	8-752-322-06	s IC CXK5814P-35
IC34	8-759-989-55	s IC SN74ALS244BN
IC35	8-759-989-55	s IC SN74ALS244BN
IC36	8-759-989-55	s IC SN74ALS244BN
IC37	8-759-989-55	s IC SN74ALS244BN
IC38	8-759-989-55	s IC SN74ALS244BN
IC39	8-759-989-55	s IC SN74ALS244BN
IC40	8-752-324-60	s IC CXK5863P-25
IC41	8-752-324-60	s IC CXK5863P-25
IC42	8-752-324-60	s IC CXK5863P-25
IC43	8-752-324-60	s IC CXK5863P-25
IC44	8-759-989-55	s IC SN74ALS244BN
IC45	8-759-989-55	s IC SN74ALS244BN
IC46	8-759-989-55	s IC SN74ALS244BN
IC47	8-759-989-55	s IC SN74ALS244BN
IC48	8-759-500-72	s IC SN74ALS157AN
IC49	8-759-500-72	s IC SN74ALS157AN
IC50	8-759-500-72	s IC SN74ALS157AN
IC51	8-759-500-72	s IC SN74ALS157AN
IC52	8-759-901-64	s IC SN74LS164N
IC53	8-759-904-38	s IC SN74ALS32N
IC54	8-759-904-38	s IC SN74ALS32N
IC55	8-759-505-01	s IC CXD8054
IC56	8-759-505-01	s IC CXD8054
IC57	8-759-063-44	s IC CXD8262Q
IC58	8-759-063-44	s IC CXD8262Q
IC59	8-759-063-44	s IC CXD8262Q
IC60	8-759-063-44	s IC CXD8262Q
IC61	8-759-088-19	o IC PAL16L8-NPPSL61V1.01, PLD
IC62	8-759-904-38	s IC SN74ALS32N
IC63	8-759-904-38	s IC SN74ALS32N
IC64	8-759-906-78	s IC 74F399PC
IC65	8-759-500-72	s IC SN74ALS157AN
IC66	8-759-500-72	s IC SN74ALS157AN
IC67	8-759-515-08	s IC SN74ALS374AN
IC68	8-759-063-39	s IC CXD8267Q
IC69	8-759-906-78	s IC 74F399PC
IC70	8-759-063-39	s IC CXD8267Q
IC71	8-759-906-78	s IC 74F399PC
IC72	8-759-063-39	s IC CXD8267Q
IC73	8-759-906-78	s IC 74F399PC
IC74	8-759-063-39	s IC CXD8267Q
IC75	8-759-906-78	s IC 74F399PC
IC101	8-759-901-64	s IC SN74LS164N
IC102	8-759-901-64	s IC SN74LS164N

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (PU-78 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC103	8-759-901-64 s	IC SN74LS164N
IC104	8-759-904-38 s	IC SN74ALS32N
L1	1-412-525-31 s	INDUCTOR 10uH
PS1	Δ1-532-675-00 s	LINK, IC 1.5A
RB1	1-231-410-00 s	RESISTOR BLOCK 10Kx8
RB2	1-231-410-00 s	RESISTOR BLOCK 10Kx8
RB3	1-231-410-00 s	RESISTOR BLOCK 10Kx8
S1	1-554-080-00 s	SWITCH, DIGITAL
S2	1-554-080-00 s	SWITCH, DIGITAL

## SY-172/SY-172P BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-682-A o	MOUNTED CIRCUIT BOARD, SY-172 (for DFS-500)
1pc	A-8271-695-A o	MOUNTED CIRCUIT BOARD, SY-172P (for DFS-500P)
2pcs	3-166-184-01 o	LEVER, PC BOARD
1pc	3-178-157-01 o	PLATE, SHIELD
8pcs	4-886-821-11 s	SCREW, S TIGHT, +PTTWH 3X6
4pcs	7-622-207-05 s	N 2.6, TYPE 2
2pcs	7-626-320-11 s	PIN, SPRING 3X8
4pcs	7-628-254-40 s	SCREW +PS 2.6X12
BT1	1-528-202-11 s	BATTERY, NICKEL-CADMIUM
C1	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C2	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C3	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C4	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C5	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C6	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C7	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C8	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C9	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C10	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C11	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C12	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C13	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C14	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C15	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C16	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C17	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C18	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C19	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C20	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C21	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C22	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C23	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C24	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C25	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C26	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C27	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C28	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C29	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C30	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C31	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C32	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C33	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C34	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C35	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C36	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C37	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C38	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C39	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C40	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C41	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C42	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C43	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C44	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C45	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C46	1-161-055-00 s	CERAMIC 0.022uF 10% 50V

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



## (SY-172/SY-172P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C47	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C48	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C49	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C50	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C51	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C52	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C53	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C54	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C55	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C56	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C57	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C58	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C59	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C60	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C61	1-161-772-11 s	CERAMIC 0.1uF 10% 25V
C62	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C63	1-161-772-11 s	CERAMIC 0.1uF 10% 25V
C64	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C65	1-124-584-00 s	ELECT 100uF 20% 10V
C66	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
C67	1-124-584-00 s	ELECT 100uF 20% 10V
C68	1-124-584-00 s	ELECT 100uF 20% 10V
C69	1-124-584-00 s	ELECT 100uF 20% 10V
C70	1-124-584-00 s	ELECT 100uF 20% 10V
C71	1-124-584-00 s	ELECT 100uF 20% 10V
C72	1-124-584-00 s	ELECT 100uF 20% 10V
C73	1-161-055-00 s	CERAMIC 0.022uF 10% 50V
CN16	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN18	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN11	1-526-659-00 o	SOCKET, IC 28P
CN12	1-526-659-00 o	SOCKET, IC 28P
CN13	1-526-659-00 o	SOCKET, IC 28P
CN14	1-526-659-00 o	SOCKET, IC 28P
CN15	1-526-660-21 o	SOCKET, IC 32P
CN16	1-526-660-21 o	SOCKET, IC 32P
CN17	1-526-660-21 o	SOCKET, IC 32P
CN18	1-526-660-21 o	SOCKET, IC 32P
D1	8-719-911-19 s	DIODE 1SS119
IC1	8-759-088-11 o	IC 27C256-NPSYS1V1.01, EPROM
IC2	8-759-088-12 o	IC 27C256-NPSYS2V1.01, EPROM
IC3	8-759-088-13 o	IC 27C512-NPSYS3V1.01, EPROM
IC4	8-759-088-14 o	IC 27C512-NPSYS4V1.01, EPROM
IC5	8-759-088-15 o	IC 27C4001-NTEFC5V1.01, EPROM (for UC)
	8-759-093-64 o	IC 27C4001-PLFC5V3.01, EPROM (for EK)
IC6	8-759-088-16 o	IC 27C4001-NTEFC6V1.01, EPROM (for UC)
	8-759-093-65 o	IC 27C4001-PLFC6V3.01, EPROM (for EK)
IC7	8-759-088-17 o	IC 27C4001-NTEFC7V1.01, EPROM (for UC)
	8-759-093-66 o	IC 27C4001-PLFC7V3.01, EPROM (for EK)
IC8	8-759-088-18 o	IC 27C4001-NTEFC8V1.01, EPROM (for UC)
	8-759-093-67 o	IC 27C4001-PLFC8V3.01, EPROM (for EK)

## (SY-172/SY-172P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC9	8-752-803-58 s	IC CXQ70116P-10
IC10	8-759-902-45 s	IC SN74LS245N
IC11	8-759-902-45 s	IC SN74LS245N
IC12	8-759-903-75 s	IC SN74LS375N
IC13	8-759-903-73 s	IC SN74LS373N
IC14	8-759-903-73 s	IC SN74LS373N
IC15	8-759-900-10 s	IC SN74LS10N
IC16	8-759-502-77 s	IC SN74LS139AN
IC17	8-759-900-32 s	IC SN74LS32N
IC18	8-759-900-20 s	IC SN74LS20N
IC19	8-759-901-38 s	IC SN74LS138N
IC20	8-759-901-38 s	IC SN74LS138N
IC21	8-759-901-38 s	IC SN74LS138N
IC22	8-759-900-21 s	IC SN74LS21N
IC23	8-752-328-05 s	IC CXK5864BSP-70L
IC24	8-752-328-05 s	IC CXK5864BSP-70L
IC25	8-759-902-44 s	IC SN74LS244N
IC26	8-759-903-74 s	IC SN74LS374N
IC27	8-759-903-74 s	IC SN74LS374N
IC28	8-759-900-74 s	IC SN74LS74AN
IC29	8-759-903-74 s	IC SN74LS374N
IC30	8-759-903-74 s	IC SN74LS374N
IC31	8-759-903-74 s	IC SN74LS374N
IC32	8-759-903-74 s	IC SN74LS374N
IC33	8-759-903-74 s	IC SN74LS374N
IC34	8-759-902-44 s	IC SN74LS244N
IC35	8-759-902-44 s	IC SN74LS244N
IC36	8-759-902-44 s	IC SN74LS244N
IC37	8-759-902-44 s	IC SN74LS244N
IC38	8-759-902-44 s	IC SN74LS244N
IC39	8-759-902-44 s	IC SN74LS244N
IC40	8-752-803-58 s	IC CXQ70116P-10
IC41	8-759-902-45 s	IC SN74LS245N
IC42	8-759-902-45 s	IC SN74LS245N
IC43	8-759-903-75 s	IC SN74LS375N
IC44	8-759-903-73 s	IC SN74LS373N
IC45	8-759-903-73 s	IC SN74LS373N
IC46	8-759-901-38 s	IC SN74LS138N
IC47	8-759-901-38 s	IC SN74LS138N
IC48	8-759-901-38 s	IC SN74LS138N
IC49	8-759-900-20 s	IC SN74LS20N
IC50	8-759-900-32 s	IC SN74LS32N
IC51	8-752-806-91 s	IC CXQ71054P
IC52	8-759-105-76 s	IC UPD71059C
IC53	8-759-107-51 s	IC CXQ71051P
IC54	8-759-107-51 s	IC CXQ71051P
IC55	8-759-902-44 s	IC SN74LS244N
IC56	8-759-902-44 s	IC SN74LS244N
IC57	8-759-926-32 s	IC AM26LS32PC
IC58	8-759-926-31 s	IC AM26LS31PC
IC59	8-752-328-05 s	IC CXK5864BSP-70L
IC60	8-752-328-05 s	IC CXK5864BSP-70L
IC61	8-752-328-05 s	IC CXK5864BSP-70L
IC62	8-752-328-05 s	IC CXK5864BSP-70L
IC63	8-759-505-28 s	IC MAX691CPE
IC64	8-759-902-44 s	IC SN74LS244N
L1	1-412-525-31 s	INDUCTOR 10uH

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(SY-172/SY-172P BOARD)

Ref. No. or Q'ty	Part No.	SP Description
PS1	△1-532-675-00	s LINK, IC 1.5A
Q1	8-729-195-23	s TRANSISTOR 2SA952
R1	1-249-429-11	s CARBON 10K 5% 1/4W
R2	1-249-419-11	s CARBON 1.5K 5% 1/4W
R3	1-249-405-11	s CARBON 100 5% 1/4W
R4	1-249-419-11	s CARBON 1.5K 5% 1/4W
R5	1-249-419-11	s CARBON 1.5K 5% 1/4W
R6	1-249-405-11	s CARBON 100 5% 1/4W
R7	1-249-419-11	s CARBON 1.5K 5% 1/4W
R8	1-249-411-11	s CARBON 330 5% 1/4W
RB1	1-235-351-11	s RESISTOR BLOCK 2.2Kx4
RB2	1-235-351-11	s RESISTOR BLOCK 2.2Kx4
RB3	1-231-410-00	s RESISTOR BLOCK 10Kx8
RB4	1-231-410-00	s RESISTOR BLOCK 10Kx8
S1	1-570-674-11	s SWITCH, SLIDE
S2	1-554-027-00	s SWITCH, DIGITAL
S3	1-570-598-11	s SWITCH, DIP 4-CKT
X1	1-577-337-11	s OSC, CRYSTAL 10.00 MHZ
X2	1-577-255-11	s OSC, CRYSTAL 8.00 MHZ

VR-135 BOARD

Ref. No. or Q'ty	Part No.	SP Description
3pcs	1-644-610-11	o PRINTED CIRCUIT BOARD, VR-135
C1	1-124-589-11	s ELECT 47uF 20% 16V
C2	1-161-485-00	s CERAMIC 0.1uF 50V
C4	1-161-485-00	s CERAMIC 0.1uF 50V
C5	1-161-485-00	s CERAMIC 0.1uF 50V
CN1	1-506-483-21	s CONNECTOR, 4P, MALE
RV1	1-223-247-11	s RES, VAR CARBON 10Kx2

VR-136 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-644-611-11	o PRINTED CIRCUIT BOARD, VR-136
C1	1-124-589-11	s ELECT 47uF 20% 16V
C2	1-161-485-00	s CERAMIC 0.1uF 50V
C3	1-161-485-00	s CERAMIC 0.1uF 50V
C4	1-161-485-00	s CERAMIC 0.1uF 50V
C5	1-161-485-00	s CERAMIC 0.1uF 50V
C6	1-161-485-00	s CERAMIC 0.1uF 50V
RV1	1-223-247-11	s RES, VAR CARBON 10Kx2
RV2	1-223-247-11	s RES, VAR CARBON 10Kx2
CN1	1-506-489-11	s CONNECTOR 10P, MALE

VR-137 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-644-612-11	o PRINTED CIRCUIT BOARD, VR-137
C1	1-124-589-11	s ELECT 47uF 20% 16V
C2	1-161-485-00	s CERAMIC 0.1uF 50V
C3	1-161-485-00	s CERAMIC 0.1uF 50V
C4	1-161-485-00	s CERAMIC 0.1uF 50V
C5	1-161-485-00	s CERAMIC 0.1uF 50V
C6	1-161-485-00	s CERAMIC 0.1uF 50V
C7	1-161-485-00	s CERAMIC 0.1uF 50V
C8	1-161-485-00	s CERAMIC 0.1uF 50V
C9	1-161-485-00	s CERAMIC 0.1uF 50V
C10	1-161-485-00	s CERAMIC 0.1uF 50V
C11	1-161-485-00	s CERAMIC 0.1uF 50V
CN1	1-506-489-11	s CONNECTOR 10P, MALE
RV1	1-223-247-11	s RES, VAR CARBON 10Kx2
RV2	1-223-247-11	s RES, VAR CARBON 10Kx2
RV3	1-223-247-11	s RES, VAR CARBON 10Kx2

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



# VR-138 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-644-613-11	o PRINTED CIRCUIT BOARD, VR-138
C1	1-124-589-11	s ELECT 47uF 20% 16V
C2	1-161-485-00	s CERAMIC 0.1uF 50V
C3	1-161-485-00	s CERAMIC 0.1uF 50V
C4	1-161-485-00	s CERAMIC 0.1uF 50V
C5	1-161-485-00	s CERAMIC 0.1uF 50V
C6	1-161-485-00	s CERAMIC 0.1uF 50V
C7	1-161-485-00	s CERAMIC 0.1uF 50V
C8	1-161-485-00	s CERAMIC 0.1uF 50V
C9	1-161-485-00	s CERAMIC 0.1uF 50V
C10	1-161-485-00	s CERAMIC 0.1uF 50V
C11	1-161-485-00	s CERAMIC 0.1uF 50V
C12	1-161-485-00	s CERAMIC 0.1uF 50V
C13	1-161-485-00	s CERAMIC 0.1uF 50V
C14	1-161-485-00	s CERAMIC 0.1uF 50V
CN1	1-506-489-11	s CONNECTOR 10P, MALE
RV1	1-223-247-11	s RES, VAR CARBON 10Kx2
RV2	1-223-247-11	s RES, VAR CARBON 10Kx2
RV3	1-223-247-11	s RES, VAR CARBON 10Kx2
RV4	1-223-247-11	s RES, VAR CARBON 10Kx2

# FRAME

Ref. No. or Q'ty	Part No.	SP Description
M1	1-541-329-31	s MOTOR, FAN
S101	Δ1-570-117-41	s SWITCH, ROCKER (AC POWER)
1pc	Δ1-413-776-11	s REGULATOR, SWITCHING SSOG1213
1pc	Δ1-413-776-21	s REGULATOR, SWITCHING
1pc	1-466-182-11	s ENCODER, ROTARY (MAGNETIC)
1pc	1-574-992-11	s CABLE, FLAT 25P ("CONTROL PANEL" to CN1/KY-223 board)
1pc	Δ1-580-375-11	s INLET, AC 3P, MALE
1pc	Δ1-950-804-11	o HARNESS (ACW-500)
1pc	Δ1-950-974-11	o HARNESS (ACW-500PB)
1pc	Δ1-950-975-11	o HARNESS (ACW-500PA)
1pc	1-951-147-11	o HARNESS (KY-4)

# HARNESS'S CHILD PARTS

HARNESS KY-1:  
 (CN1F/KY-226 board to CN4F/KY-225 board)  
 (CN1F/VR-135 board to CN6F/KY-225 board)  
 (CN1F/VR-135 board to CN5F/KY-223 board)  
 (CN1F/VR-135 board to CN6F/KY-223 board)  
 Unstock parts

HARNESS KY-2:  
 (CN1F/VR-136 board to CN5F/KY-225 board)  
 (CN1F/VR-137 board to CN7F/KY-223 board)  
 (CN1F/VR-138 board to CN8F/KY-223 board)  
 Unstock parts

HARNESS KY-3:  
 (CN1F/KY-225 board to CN2F/KY-223 board)  
 (CN2F/KY-225 board to CN3F/KY-223 board)  
 (CN3F/KY-225 board to CN4F/KY-223 board)  
 Unstock parts

HARNESS KY-4:  
 (KY-223 board to KY-225 board)  
 1pc Δ1-535-340-11 o CONTACT

HARNESS DCW-500:  
 (CN1/LE-55B board to CN22/MB-385 board)  
 CN1F 1-569-196-31 o HOUSING 3P  
 1-569-193-11 o CONTACT, FEMALE  
 CN22F 1-569-196-11 o HOUSING, CONNECTOR 3P  
 1-569-193-11 o CONTACT, FEMALE  
 (CN4/POWER SUPPLY to CN25/MB-385 board)  
 CN4F 1-562-821-11 o HOUSING, 6P  
 Δ1-560-764-21 o CONTACT, FEMALE AWG18-24  
 CN25F Δ1-562-286-11 o HOUSING, 5P  
 Δ1-562-210-11 o CONTACT, FEMALE AWG18-22  
 (CN5/POWER SUPPLY to CN24/MB-385 board)  
 CN5F 1-562-819-11 o HOUSING, 4P  
 Δ1-560-764-21 o CONTACT, FEMALE AWG18-24  
 CN24F 1-562-285-11 o HOUSING, CONNECTOR 4P  
 Δ1-562-210-11 o CONTACT, FEMALE AWG18-22

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.



(FRAME)

Ref. No.  
or Q'ty Part No. SP Description

(CN6/POWER SUPPLY to CN23/MB-385 board)

CN6F 1-562-819-11 o HOUSING, 4P  
1-560-764-21 o CONTACT, FEMALE AWG18-24  
CN23F 1-562-285-11 o HOUSING, CONNECTOR 4P  
1-562-210-11 o CONTACT, FEMALE AWG18-22

HARNESS ACW-500 (for J, UC):

(CN1/POWER SUPPLY to SEESAW SW S101)

CN1F 1-562-820-11 o HOUSING, 5P  
1-560-764-21 o CONTACT, FEMALE AWG18-24  
1-570-117-41 s SWITCH, ROCKER (AC POWER)  
4-378-341-01 o COVER, SWITCH

(SEESAW SW S101 to INLET 3P)

(INLET 3P to WIRE GROUND)

1-535-316-11 s TERMINAL, GROUND (M4)  
1-580-375-11 s INLET, AC 3P, MALE  
4-601-466-11 o COVER, 3P INLET

HARNESS ACW-500PA (for EK):

(CN1F/AC-111B board to INLET 3P)

CN1F 1-562-211-11 o HOUSING 3P  
1-562-210-11 o CONTACT, FEMALE AWG18-22  
1-580-375-11 s INLET, AC 3P, MALE  
4-601-466-11 o COVER, 3P INLET

(INLET 3P to WIRE GROUND)

1-535-316-11 s TERMINAL, GROUND (M4)

HARNESS ACW-500PB (for EK):

(CN1/AC-111B board to SEESAW SW S101)

CN1F 1-562-820-11 o HOUSING, 5P  
1-560-764-21 o CONTACT, FEMALE AWG18-24  
1-570-117-41 s SWITCH, ROCKER (AC POWER)  
4-378-341-01 o COVER, SWITCH

(CN2F/AC-111B board to SEESAW SW S101)

CN2F 1-562-286-11 o HOUSING, 5P  
1-562-210-11 o CONTACT, FEMALE AWG18-22

(CN2F/AC-111B board to WIRE GROUND)

1-535-340-11 o CONTACT

PACKING MATERIALS & SUPPLIED ACCESSORIES

Ref. No.  
or Q'ty Part No. SP Description

1-534-754-00 s CORD POWER, 2P (for J)  
1-557-377-11 s CORD, POWER (for UC)  
1-590-910-11 s CORD, POWER 3P (for EK)  
1-696-660-11 o CABLE, D-SUB 25P(DIGITAL VIDEO)10m  
2-990-242-01 s HOLDER (B), PLUG (for J, UC)  
3-170-078-01 o HOLDER (B), PLUG (for EK)  
3-177-560-01 o CHIP (B), SW  
3-178-159-01 o INDIVIDUAL CARTON (for J, UC)  
3-178-171-01 o CUSHION (INNER)  
3-178-172-01 o CUSHION (UPPER)  
3-178-174-01 o CUSHION  
3-178-513-01 o INDIVIDUAL CARTON (for EK)  
3-701-634-00 o BAG, POLYETHYLENE  
3-755-938-01 s MANUAL, INSTRUCTION (for J)  
3-755-938-21 s MANUAL, INSTRUCTION (for UC, EK)  
3-755-938-31 s MANUAL, INSTRUCTION (for UC, EK)  
3-755-938-41 s MANUAL, INSTRUCTION (for EK)

8-4. OPTIONAL FIXTURES

OPTIONAL FIXTURES

J-6035-070-A o PLCC IC EXTRACTION TOOL  
J-6186-940-A o EXTENSION BOARD EX-326  
J-6031-820-A o MULTI CONNECTOR CABLE (DIBNC)  
J-6081-830-A o MULTI CONNECTOR CABLE (DOBNC)  
J-6381-380-A o VIDEO CABLE (S-BNC)  
1-575-065-11 o 25-PIN CONTROL CABLE (5m)

Standard

Product SOPT HEATER HS-600 (100V)  
(117V)  
(220V)  
(240V)

NOZZLE HS-616 (for HS-600)  
HS-619 (for HS-600)

NOTE: Please see page 8-9 for the parts that are not listed in the parts list.